A SPECIAL STUDY

(2)

WHO IS LEAVING THE FEDERAL GOVERNMENT?

An Analysis of Employee Turnover

A Report to the President
and the Congress of the United States
by the U.S. Merit Systems Protection Board

THE CHAIRMAN

U.S. MERIT SYSTEMS PROTECTION BOARD
1120 Vermont Avenue, N.W.
Washington, D.C. 20419

August 23, 1989

Sirs:

In accordance with the Civil Service Reform Act of 1978, it is my honor to submit this U.S. Merit Systems Protection Board report titled "Who is Leaving the Federal Government? An Analysis of Employee Turnover."

This report provides a detailed analysis of the turnover in Federal white-collar occupations. The data on turnover are examined not only by occupations but also from the perspective of major Federal departments, agencies, and selected demographic characteristics of the work force.

I think you will find this report useful as you consider issues regarding the management of the Federal civilian work force. The information provided in this report may be particularly useful in helping to identify some potential problems and personnel management issues to be addressed by Federal policymakers and managers.

Respectfully,

Daniel R. Levinson

Daniel R. Levinson

The President
The President of the Senate
The Speaker of the House of Representatives

Washington, DC

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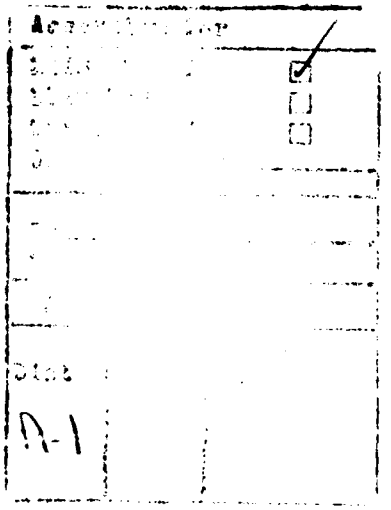

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SUMMARY AND OVERVIEW

How many employees leave the Federal Government each year? Is it too high a number and should one be concerned about an exodus of needed talent? Is it too low and is the Government suffering from a lack of new ideas and energy? While the first question can be answered with some degree of accuracy, the answers to the latter two questions properly begin with "it depends." Certainly, the dynamics of employee turnover can impact on the ability of the Government to effectively and efficiently fulfill its public service responsibilities. To better understand those dynamics, it is reasonable to start with the basic question of "who is leaving?" In this report, the U.S. Merit Systems Protection Board (MSPB) provides some insights into the answer to that question through an analysis of selected Federal employee turnover over a recent 1-year period. The report examines data on almost 1.4 million full-time, permanent, employees in white-collar jobs within the executive branch. In a forthcoming, followup report, the Board will examine the related question of "why are employees leaving?"

Background

Recently, increased attention has been paid to the issue of the quality of the Federal work force. Is the Federal Government staffed with motivated personnel who have the requisite job-related skills, knowledges, and abilities? Is the Government recruiting its fair share of the "best and brightest?" And, finally, is the Government retaining its capable employees over a reasonable period of time? It is to this last question that this report is devoted.

The Federal civilian work force is very large--approximately 2.1 million not counting the U.S. Postal Service--and quite varied. Approximately 20 percent of these employees work in blue-collar occupations. To provide a reasonable focus, this report concentrates on the turnover among approximately 1.4 million full-time, permanent, white-collar employees in the executive branch during calendar year 1987. For the purposes of this report, turnover is defined in terms of the individuals who left the Federal Government and does not include individuals who transferred from one Federal agency to another.

The statistical information in this report, was obtained from the Central Personnel Data File (CPDF) maintained by the U.S. Office of Personnel Management (OPM). The data were drawn according to MSPB specifications. While the analysis of this information is largely descriptive in nature, MSPB is also conducting a survey of Federal employees leaving the Federal Government from April through June 1989, to gain some insight into why they are leaving the Federal Government. The results of this latter study will be contained in a separate report.

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Selected Findings

- Of the almost 1.4 million employees reviewed, approximately 1 out of every 11 (9 percent) left the Federal Government during calendar year 1987. Although this entailed a loss of approximately 120,000 employees, it is actually less than the rate of turnover reported by many private sector employers.

- Only one out of every four employees (25 percent) who left the Government retired. Almost three of every five departing employees (58 percent) resigned. Agency-initiated removals accounted for 5 percent of all the separations.

- There was a 25 percent turnover rate among employees during their first year of Federal service, almost exclusively through resignations.

- Although they constitute only 26 percent of the work force, employees in positions at grades GS-1 through 5 accounted for 55 percent of all resignations.

- Among employees who had over 30 years of service, one out of five (20 percent) retired in 1987. The average age of Federal retirees –60 years–is close to the average age of private sector retirees–61 to 62 years.

- Only 4 percent of all employees with from 16 to 20 years of service left the Government during the period under review.

- Turnover rates varied widely among different occupations. Turnover was highest among the health-related and lower level clerical and support occupations (e.g., 19 percent of all practical nurses and 16 percent of all clerk/typists left Government during the year).

- Contrary to conventional wisdom, turnover among many technical and engineering occupations was lower than average (e.g., only about 5 percent of all engineers and computer specialists left Government during 1987).

- Overall, employees with low performance ratings left the Government at a higher rate than employees with high ratings. For example, 20 percent of all employees with a "minimally satisfactory" rating and 27 percent of all employees with an "unsatisfactory" rating left the Government in 1987 versus a departure rate of approximately 7 percent for employees who received higher ratings. However, less than 1 percent of all employees received the lower ratings.

- Turnover rates also vary widely by agency, even within the same occupation. For example, the rate at which secretaries resigned varied from 4 to 9 percent.

- In addition to separations from the Federal Government, individual agencies also experience the loss of employees who transfer to other Federal agencies or change jobs within the agency. Among the approximately 1.4 million employees studied, 2 percent (32,691) transferred from one Federal agency to another during 1987. A much larger percentage would have changed jobs within their agency.

Conclusions

The dynamics of Federal employee turnover are complex and multifaceted. While related most strongly to age and length of service, turnover rates also vary relative to occupation, agency, and a variety of demographic variables. Conclusions about what "causes" turnover should be drawn very carefully, since there may be indirect relationships among several different factors. For example, the relationship between age and the rate of turnover may be as much a function of length of service as age.

The turnover data presented in this report will be most useful to the Government manager as benchmark data with which they can compare and contrast their individual situation. Any comparisons of turnover rates, however, should always be made for comparable work forces and with similar definitions of turnover. Because Federal and private sector organizations differ substantially in the size, age, and composition of their work forces, comparisons of turnover rates for these sectors must be made with particular caution.

SUMMARY AND OVERVIEW

For Federal personnel policy planners, the Governmentwide data in this report have several implications, i.e.:

- The Governmentwide turnover rate of 9 percent is unlikely to be pushed much lower and, in fact, it may actually increase over the next several years as a greater percentage of employees become eligible for retirement. Therefore, sole reliance on increased Governmentwide retention of Federal employees would, for the most part, not be a particularly effective strategy for dealing with current and future work force needs. More useful strategies will concentrate on recruitment and employee development and utilization. Efforts to address some of the possible causes of turnover, however, will still be useful in order to minimize any future increases in the turnover rate.

- To the extent that there is a Governmentwide effort to reduce turnover, it should concentrate on the two extremes–new hires and the retirement eligibles, i.e.:

  - An increasingly large percentage of Federal employees will reach retirement age (over 50 percent of all employees are between the ages of 36 to 55) in the near future. This could pose a serious challenge for the Federal Government insofar as this entails the potential loss of a large block of experience and knowledge. In addition, any impact of the "portability" provisions of the new Federal Employee Retirement System (FERS) will also become evident in the near future.

  - The 25 percent turnover rate among new hires may be cause for concern. It may be possible that some of this turnover is unnecessary and a waste of the time and effort that were spent in recruitment.

Are too many employees leaving the Government each year? For some occupations in some locations, the answer is yes. For other occupations, the answer is no. Where turnover is already a problem, how is it likely to change? There is reason to suspect that it will become worse before it gets better. However, the turnover data discussed in this report lend support to the growing notion that it simply is not useful to conceive of the Government as a monolithic organization that responds in unison to changing conditions and broad, Governmentwide public policies.

In summary, employee turnover has many facets and is probably best understood within the context of specific situations (e.g., agencies, occupations, grade levels, geographic locations) and addressed through tailored agency-specific strategies. The data in this report provide some benchmarks to assist in those endeavors. Overall, however, there are some major public policy implications regarding the current "tools" available to public managers in terms of current civil service rules and regulations. The rigidities of the current white-collar compensation system, for example, provide Federal managers with few options for attempting to retain--on a selected basis–high performing employees who are leaving for compensation-related reasons. In this context, recent legislative proposals that have aimed at providing greater flexibilities within the system and which allow for a greater range of differences to occur are probably headed in the right direction.

INTRODUCTION

Addressing the question of who is leaving the Federal Government is a first step in achieving a greater understanding of the dynamics of employee turnover in the Federal civil service. It is a multi-dimensional question whose answer is related--directly or indirectly--to the general economy, the national labor market, organizational variables, and the values, characteristics, expectations, and abilities of Federal employees. Employee turnover is costly and knowing more about who is leaving can provide useful information about the extent to which turnover is detrimental or beneficial to an organization.

To help answer the question of who is leaving the Federal Government, the U.S. Merit Systems Protection Board (MSPB) initiated an analysis of information contained in the Central Personnel Data File (CPDF) of the U.S. Office of Personnel Management (OPM). Depending on the answer to the question of who is leaving, Federal policymakers and managers may need to alter their recruiting strategies, change compensation practices, redesign career paths, modify training, enhance the quality of worklife, offer alternative employee benefits, or initiate some other changes in Federal personnel management practices. Failure to correctly anticipate human resource requirements and to make the necessary adjustments could result in serious personnel imbalances and a diminished ability to serve the general public.

The number of employees who leave the Federal Government in any single year is not trivial. In 1987, the U.S. Government lost nearly 120,000 full-time, permanent, white-collar employees--70,000 through resignations. Rough estimates of the costs to replace separated employees range from $300 to $2,200 per occurrence, depending on position.[1] The cumulative costs of replacing employees can be particularly high when the same positions must be filled on a recurring basis

These and most estimates of the cost of turnover are generally limited to the more direct costs of recruiting and placing new employees. Total turnover costs are likely to be much higher, since they also include indirect costs, such as the costs of lost productivity while the position is vacant, the disruptive effect of the vacancy on related jobs, the loss of experience, the reduction of work quality while the replacement learns the job, and the increased requirement for training and supervision.

Although turnover is costly and can have negative consequences for an organization, it also can have *positive effects. For example, turnover may* permit an infusion of new ideas, stimulate changes in policies and practices, and help reduce entrenched organizational or personal conflicts. Turnover may also involve the removal of workers who are performing relatively poorly and may help ensure a more motivated work force in occupations with traditionally high rates of "burn out"--i.e., occupations involving low-level skills and highly repetitious or monotonous tasks.

The need for more information about Federal turnover is clearly recognized both inside and outside the Government and pervades current debates about the quality of the Federal work force.[2] A 1988 General Accounting Office study explicitly calls for an ongoing and systematic assessment of separations from the Federal public service.[3] Given that recruitment of Federal employees will become increasingly more difficult in the near future,[4] retaining productive Federal employees will become a more important component in any strategy to reduce impending personnel shortfalls.

Any deterioration of the Federal work force will directly impact on the Government services that are provided to the American public. For example,

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reputed delays and inaccuracies in the handling of tax documents by the Internal Revenue Service may be attributable, in part, to high rates of turnover and the relative inexperience of the remaining work force.[5]

Despite the perception of many top Government executives and managers that the quality of the Federal work force is declining,[6] useful information about the number and types of employees who leave the Federal Government is not readily available or widely disseminated. Without Governmentwide benchmarks, it is difficult to assess the nature and magnitude of the turnover problems experienced within Federal organizations.

The primary objectives of this report are to provide Federal policymakers and managers with useful information about the number and types of employees leaving the Federal Government and about the factors that most directly affect the rate of turnover. This report is the first of two MSPB reports dealing with turnover in the Federal Government. A second report will provide more detailed information about why people leave the Federal Government by reporting the results of a Governmentwide exit survey conducted by MSPB.

These two reports are not intended to provide all the answers. Together, however, they will form a baseline for the development of Governmentwide trends and provide a valuable introductory look at the dynamics of turnover in the Federal, white-collar civil service. The information will be the foundation for the possible design of a Governmentwide system for tracking turnover and for monitoring the quality of the Federal work force. The information is designed to provide a common frame of reference for discussions and strategies to improve human resource management in the Federal civil service.

APPROACH

Source of Information

The data for this report were derived from the Central Personnel Data File of the U.S. Office of Personnel Management. This computerized data base contains information on approximately 2 million civilian, executive branch Federal employees. Employees of the U.S. Postal Service and agencies exempt by law from personnel reporting requirements (e.g., Central Intelligence Agency) are not included in the CPDF.

MSPB prepared a special data request to obtain information from OPM about the number and types of employees who left the Federal Government during calendar year 1987--the most current year for which complete information was available. Specifically, the request included information about the rates of turnover for individual Federal occupations, as well as for 22 Federal departments and agencies in the executive branch.

Employees Studied

In order to permit comparisons of these results with other turnover data, it is essential that the characteristics of the employees studied are clearly understood. Interpretations of turnover rates have limited meaning unless comparison groups are similar in composition. For example, turnover rates for full-time employees differ from those for part-time employees, and turnover rates for white-collar employees differ from those for blue-collar employees. Such differences are to be expected, since employees in these groups are likely to differ significantly from each other on a variety of the factors that affect the rate of turnover--e.g., age and sex.

The selection of the employees to be studied (referred to in this report as the study group) was made from the approximately 2 million employees who were reported to the CPDF as employed in 1987. Although the turnover rates for blue-collar, part-time, or other employee work groups are also of interest, it was necessary to focus the scope of this report on a single large component of the Federal work force--full-time, permanent, white-collar employees in the executive branch who worked in the United States.

The final study group consisted of 1,396,422 full-time, permanent, white-collar, executive branch employees. This group represents about 70 percent of the 2 million executive branch, civilian employees in the CPDF. Specifically excluded from the study group were employees working in foreign countries, members of the Senior Executive Service,[7] and employees in positions of a political or confidential nature. There are relatively few of these latter positions, but they differed enough--in terms of the number and types of factors that contribute to the rate of turnover--from the positions included in the study group to warrant their exclusion.

Although this report focuses on the turnover rates for the study group, appendix B includes the basic turnover rates for some of the other Federal employee groups. This information is made available for the purposes of making broad comparisons among the groups.

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Definition of Turnover

The most widely used measure of turnover, and the one used in this report, expresses employee turnover as a percentage of the total employment over a specified period of time. For example, if 12 people leave an organization in 1 year and the average employment for that 1 year is 300 employees, the turnover rate is calculated to be 4 percent (12/300 x 100 = 4 percent). "Average employment" in this study was the average of the number of full-time, permanent, white-collar employees "on board" on January 1 and on December 31 of 1987.

Sixteen different codes ("Nature of Action" codes) are used to describe the types of personnel actions that are taken when employees separate from the Federal Government.[8] For the purposes of this study, these 16 separation codes were grouped into 4 broad categories of turnover: resignations, voluntary retirements, agency separations, and other separations.

Appendix C includes more detailed information about this categorization. Briefly, resignations and voluntary retirements include those separations in which the employee primarily "controls" or initiates the separation. Agency separations are primarily controlled by the agency, while other separations include all remaining separations in which the controlling agent or factors are less clear or unknown.

Interpretation of the Data

Throughout this report, the data are presented in a summary form and overall findings may not always be applicable to every subgroup of the work force. The percentages reported have all been rounded to the nearest whole percent. Because of this rounding, percentages in the tables and the text do not always add to their totals.

All turnover data presented in the body of this report pertain to a specific group of employees. Comparisons of these data with any other turnover data--Government or non-Government--must always consider the comparability of the study groups and the definitions of turnover used. Turnover studies seldom coincide sufficiently in their definitions and approach to warrant anything more than a global comparison. Precise comparisons and identification of turnover trends require study groups and turnover definitions that are as nearly identical as possible.

Detailed evaluations about the extent to which a given rate of turnover is "good" or "bad" are best made at the local level. While broad generalizations and trends can and should be tracked on a Governmentwide basis, the Government is not a monolithic structure of interchangeable parts. In-depth evaluations of turnover rates depend, to a large extent, on meaningful information about the occupation involved, the quality of the employees lost, the difficulty in finding replacements, the costs of replacements, the amount and cost of training, etc. Such information varies from one organization to the next, and without such additional contextual information, comparisons and assessments of the significance of turnover rates will necessarily be limited in their depth and detail.

Care should be taken in assuming any cause-and-effect relationships based on the data presented in this report. Differences among subgroups in the rates of separation cannot be interpreted to mean that subgroup membership causes a higher or lower separation rate. There are many other contributing factors that must be considered. For example, different separation rates for male and female workers may be largely a reflection of a difference in the average age of these two employee groups rather than a reflection of sex differences per se.

Finally, the accuracy of the data depends wholly on the completeness and accuracy of the data provided to OPM for the CPDF by the reporting agencies. Edit checks by OPM of the data received from the Federal agencies help ensure a rejection rate of less than 1 percent for most data elements. When OPM recently compared CPDF data elements with selected benchmarks, 98 percent accuracy was found; and a 1986 study of the validity of CPDF data elements suggests that data elements of the type used in this study have an error rate of only about 1 percent.[9]

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Age of the Employees Studied

The age distribution of the study group is particularly relevant to any discussion of Federal turnover. As figure 1 shows, there is a large "bulge" of Federal employees between the ages of 31 and 50. This large group, which includes the "baby boomers" (ages 35 to 44), will become a major factor in the aging of the work force and will increasingly challenge the resourcefulness of Federal policymakers and managers. The implications of this large group will become more apparent later in this report.

Turnover Rates

Of the approximately 1.4 million Federal employees in the study group, 9 percent or 119,669 employees left the Federal civil service during 1987, as is shown in figure 2. The total separation rate of 9 percent consisted largely of a 5-percent (69,298) resignation rate and a 2-percent (30,211) voluntary retirement rate. Agency-initiated separations occurred at a rate of less than one-half of 1 percent. There were 5,419 of these separations, plus 14,741 other separations.

Figure 1.
Age Distribution of Full-Time, Permanent, White-Collar Federal Employees

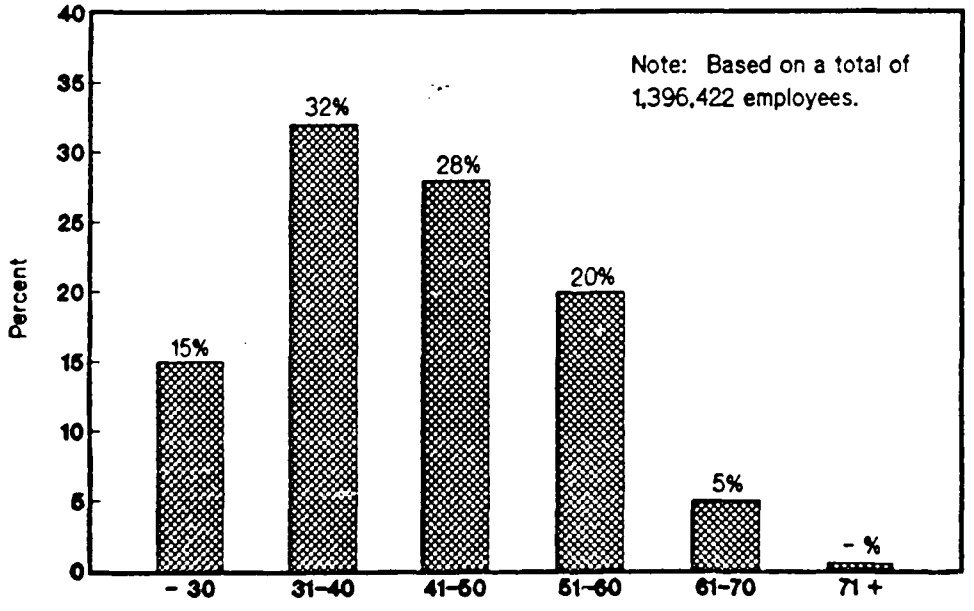

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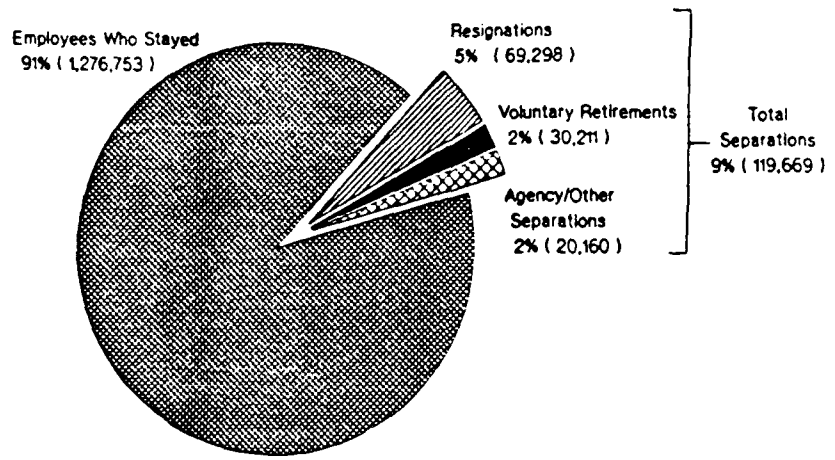
Figure 2.
Rates of Turnover in the Federal Government



Note: All percents are rounded and based on 1,396,422 full-time, permanent, white-collar employees. Numbers of employees are in parentheses.

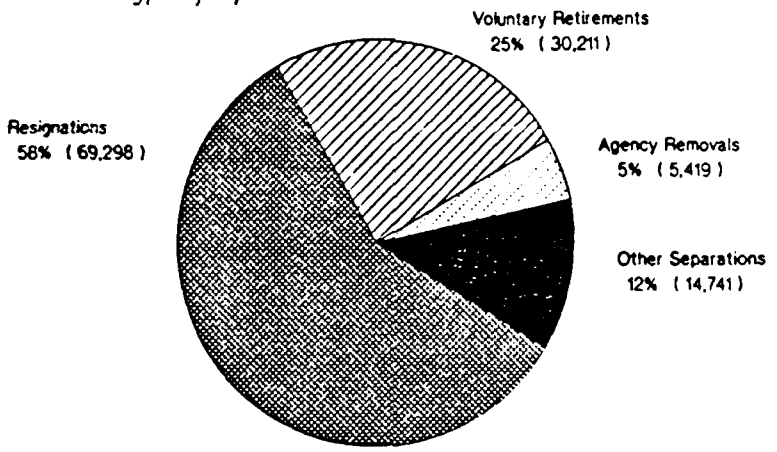
More than half (58 percent) of all the 119,669 separations in 1987 were resignations, as is shown in figure 3. Only one-fourth (25 percent) of the separations were voluntary retirements. A small percentage (5 percent) of the separations were agency-initiated separations, while the remaining 12 percent included all other separations. Therefore, despite the fact that the Federal civil service retirement system is reputed to be relatively attractive compared to non-Federal retirement plans, many individuals do not remain Federal employees long enough to benefit from that system.

Throughout the remainder of this report, the total separation rate of 9 percent, the 5 percent resignation rate, and the 2 percent retirement rate will be used as the Governmentwide benchmarks. Turnover rates for component subgroups of the Federal work force will be compared to these three rates for evaluation. In making any comparisons, rates of turnover (expressed as a percentage) should not be confused with other percentages cited in this report. For example, while 5 percent of all Federal employees in the study group resigned (i.e., the rate), resignations accounted for 58 percent of all the separations.

The Governmentwide separation rates reported in this study and shown in figure 3 are virtually identical to those cited by the Congressional Budget Office (CBO) for 1984. Using procedures very similar to those of this study, CBO reported a total separation rate of 10 percent and a resignation rate of 5 percent.[10] The differences are within the differences that might be expected due to rounding and slight procedural differences.

Private sector turnover rates generally tend to be higher than Government turnover rates. For example, private sector turnover rates were given as 14 percent in one study[11] and 16 percent in another.[12] However, comparisons of Federal turnover rates with those for the private sector must be made with caution. Detailed comparisons are seldom meaningful, given the major differences between the Federal and private sector work forces. These work forces differ significantly in size, age, and type of work performed. For example, private sector work forces include more manufacturing and retail occupations than the Federal work force.

Figure 3.
Types of Separation From the Federal Government



Note: All percents are rounded and based on a total of 119,669 separations.

Furthermore, the definitions of turnover used in the private sector generally differ from those used in the Federal sector. For example, in the private sector, employees who leave one organization to work for another organization are counted as separations. In the Federal sector, employees who make similar career changes–but within the Federal Government–are counted as transfers, not as separations. Approximately 2 percent of all Federal employees transferred from one Federal agency to another during 1987.

In addition, turnover statistics in the private sector do not differentiate as clearly between voluntary and involuntary separations as in the Federal sector and often include the turnover rates of part-time, temporary, and intermittent employees in the overall estimate. Some of these last-mentioned groups include employees in low-paying jobs that may be vacated several times a year.[13] When differences such as these are considered on a comparative basis, Federal employee turnover may not be as different from private sector turnover as believed by some.[14]

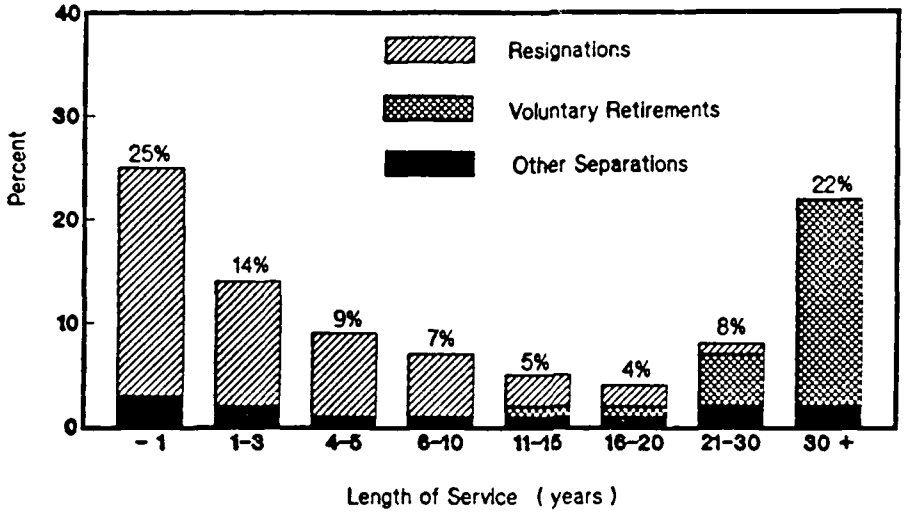
Overall, the Governmentwide turnover rate appears to be relatively stable. Furthermore, Governmentwide efforts to reduce future personnel shortfalls by reducing the rate of personnel turnover are likely to have limited success, at best. In other words, it may not be practical to greatly reduce the current rate of turnover within the Government as a whole. The *current overall rate of turnover may be near optimal* for an organization the size of the Federal Government. However, rates of turnover in certain component subgroups (e.g., occupations) of the Federal work force may be susceptible to change.

The challenge is for Federal managers to identify those components of their work force that require the most immediate attention and to focus their resources accordingly. In terms of turnover, Federal managers are advised to focus on reducing turnover of valued employees in the most critical positions. At the same time, it is necessary to develop more competitive recruiting and employee development strategies to find high quality replacements for employees who do leave. Given the currently stable overall turnover rate of Federal employees, the greatest relief from current and future personnel shortages is likely to derive from these latter approaches, with a few exceptions.

Turnover Rates by Length of Service

The rate of Federal turnover is far from uniform and varies widely as a function of length of service. The overall pattern of turnover rates in 1987 peaked at two points, first during the early years of service and

Figure 4.
Turnover Rates by Length of Service



again, although to a lesser degree, during the later years of service as is shown in figure 4. The average turnover rate for an employee with less than 1 year of service was 25 percent. This rate decreased to 4 percent for workers with 16 to 20 years of service. After 20 years of service, the turnover rate increased again, reaching 22 percent for employees with 30 or more years of service.

Figure 4 shows how the overall pattern of turnover rates in 1987 was the result of the way the rates of resignation, retirement, and other separations changed with length of service. Consistent with the turnover literature,[15] the 1987 resignation rate for the study group dropped sharply with length of service–from a high of 22 percent for workers with less than 1 year of service to 3 percent or less for workers with more than 10 years of service. Not unexpectedly, the rate of voluntary retirements rose most sharply to 20 percent after the time when most employees become eligible for retirement–after 30 years of service.

Although the combined rate of agency-initiated separations and "other" separations, shown in figure 4, remained relatively constant as length of service increased, the mixture of separation types making up these categories did not necessarily remain the same. For example, separations due to the death of the employee most likely represented an increasingly larger proportion of the "other separations" as length of service increased.

The overall pattern of turnover strongly suggests that the greatest payoffs in efforts to reduce turnover are at the two ends of the length-of-service continuum. More effective selection and placement procedures might help reduce the high rate of turnover during the first year of service, particularly, if more detailed analyses show that attrition among this group of employees reflects the results of poor selections.

At the other end of the length-of-service continuum are employees eligible to retire. These employees might be selectively encouraged to delay retirement through positive personnel management strategies that address the expectations of older workers. This might include job redesign, positive training and retraining, improved work environments, flexible work options, and development of work assignments to fit the needs of older workers.[16]

Impact of Federal retirement systems on turnover. The initial decrease and later increase in turnover as length of service increases is related, in part, to the rules and regulations of the Federal retirement system. Because the design of the Civil Service Retirement System (CSRS) offers benefits only after completion of a specified period of time, Federal workers are encouraged to stay and work until retirement. The larger the deferred benefit, the stronger the incentive to stay.

The Government generally has deferred into the retirement system a larger portion of its total compensation package than the private sector. Consequently, Federal employees have particularly strong incentives to stay.[17] These incentives to stay increase with increases in length of service and help account for the relatively low rates of turnover during the years immediately preceding retirement eligibility.

Up until 1984, Federal employees who left before they were eligible to retire–and who left in the retirement system their contributions to the retirement fund–found their retirement benefits eroded by inflation. This was because they could not draw benefits based on their Government service until age 62. At that age, their benefits are calculated on the salary earned just before leaving Government--a salary substantially reduced by inflation by the time they reach age 62. In one analysis, the pension penalty imposed on Federal workers who exit early was estimated to be almost 4 times larger than the pension penalty imposed on workers in the private sector.[18] It is no wonder that this economic disincentive is sometimes referred to as "the golden handcuff."

In 1984, the economic disincentives for leaving the Government were substantially reduced for all newly hired civil servants. Beginning in 1984, all new Federal employees (plus those existing employees who opted to switch systems in 1986) are covered by a new retirement system, known as the Federal Employees Retirement System (FERS). Unlike CSRS, FERS imposes fewer penalties on experienced Federal employees who leave the Government. Consequently, as more employees in FERS acquire 10 to 20 years of service, they will have fewer disincentives to resign than current CSRS employees. With fewer disincentives, FERS employees in the 10 to 20 year length-of-service category may be expected to resign at greater rates than their CSRS counterparts.[19] The precise magnitude of this effect will be something to study in the future, as increasing numbers of FERS employees reach 10 to 20 years of service--in 1994 to 2004.

Impact of the age of the work force on turnover. The potential increase in the separation rate of employees with 10 to 20 years of service will be overshadowed by the much larger and simultaneous increase in the number of retirements. This increase in the number of retirements will be the direct result of the "bulge" of current Federal employees, ages 31 to 50, who will be reaching retirement age beginning in 1994. As this large group of current employees ages and reaches retirement eligibility, they can be expected to retire at a rate similar to that for 1987--20 percent for employees with 30 or more years of service.

There is currently little information to suggest that the rate of voluntary retirements will change substantially in the near future. If there is a change, it is likely to be an increase rather than a decrease, as more and more employees are retiring at an earlier age.[20] Unless steps are taken now to retain experienced retirement-eligible workers in the Federal work force, severe shortages may be inevitable in many occupations. For example, in a recent survey of mid- to high-level Federal career employees, 65 percent of the 10,000 respondents indicated they "probably will retire" as soon as they became eligible.[21]

While the number of retirements will increase, the pool of younger workers from which to select replacements will diminish and available candidates for Federal jobs are less likely to have all of the knowledge and skill required to perform the work.[22] Recruiting difficulties are already being experienced by some agencies, for example, in the fields of nursing, computer science and engineering, where the demand for qualified candidates already exceeds the supply.[23]

The aging of the Federal work force will not be even and will vary widely, both by occupation and agency. Agencies that have done relatively little hiring or that have had to lay off younger workers during reductions in force, are most likely to have a work force populated primarily by older workers.

One example of an occupation with an aging work force is that of civil engineers.[24] Civil engineers were hired in large numbers after World War II to construct the interstate highway system. As construction slowed, many of these engineers pursued other fields. Now, as this nation faces a transportation crisis, these engineers–who have worked for 30 to 40 years--are ready to retire. At the Federal level, for example, 35 percent of the 400 civil engineers at the Federal Highway Administration will be eligible to retire in

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1995, taking with them years of invaluable experience. Replacing the experienced workers, who will retire in this and similar occupations, will not be an easy task. The "bench strength" is not there, and students' enrollments in the relevant educational specialties are down.

Overall, the effect of time is a redistribution of the work force along the age continuum. Instead of most workers being clustered in the middle of the age continuum, they will cluster more at the ends, as the current large mid-range work force ages and new workers are hired to replace those who retire. In effect, the pattern of age distribution in some occupations may appear more like that shown earlier in figure 4 than in figure 1. To the extent that the age distribution peaks at the low and high end of the age continuum, large numbers of Federal employees will be in groups that have some of the highest rates of turnover. The net result will be a dramatic increase in the rate--and cost--of turnover.

This increase in the rate of turnover will not occur evenly among all occupations. The effect is already evident in some occupations--e.g., among scientists and engineers at NASA.[25] It must be noted, however, that this effect will not necessarily be obvious from the average age of the employees in an occupation, since an influx of young hires into an occupation tends to offset the increase in the average age. Nor can the influx of younger workers be expected to totally offset the increase in the average age, since there will be relatively fewer 18- to 24-year olds in the labor pool in the next decade.[26] Therefore, along with new recruiting strategies, new job structuring and organization designs may be needed.

Another effect of the aging of the work force is "career plateauing."[27] Career plateauing refers to the length of time an individual remains at a given level in his or her career. Career plateauing is particularly likely to impact on the large number of "baby boom" employees (i.e., employees who are currently between the ages of 35 and 44). Employees in this group will increasingly find higher level positions filled by employees who are not likely to retire soon. Consequently, increasing numbers of employees will find that their opportunities for advancement are diminished. Motivating and retaining plateaued workers will present a special challenge to Federal personnel managers and needs to be considered in any strategic work force plan.

Turnover Rates by Performance Appraisal Ratings

The issue of turnover becomes particularly critical when an agency loses its better employees. Although there are no generally accepted measures of the quality of people who leave the Government in comparison to those who stay, some inferences may be drawn by comparing the performance appraisal ratings of those who left with the ratings of those who stayed.

Performance appraisal ratings were available for 1,167,872 employees in the study group. Performance ratings were not available for all employees in the study group for a variety of reasons. For example, many employees were not in their positions long enough to be rated, or performance ratings are not required to be reported to the CPDF.

Because employees without performance appraisal ratings are often in employee groups that have a high turnover rate (e.g., employees with less than 1 year of service), the total separation rate for employees with performance appraisal ratings was lower (7 percent versus 9 percent) than the Governmentwide average, as is shown in table 1. What is important to note in table 1 is that the rates with which employees with "minimally satisfactory" and "unsatisfactory" ratings left the Government--19 and 27 percent, respectively --were three to four times higher than the average for all employees who had performance appraisal ratings--7 percent. Employees with "outstanding" and "exceeds fully successful" ratings left at the slightly lower than average rates of 6 and 5 percent, respectively. This pattern of separation rates held for all types of separations and is virtually identical with the pattern reported by MSPB for 1984-85.[28]

Although it is desirable to have less satisfactory workers separate at a higher rate than more satisfactory workers, a closer look at the number of people involved in the separations shown in table 1 reveals a less positive picture. Because performance appraisal ratings are skewed to the high side (58 percent of the employees were rated above "fully successful"), even the relatively small separation rates of 6 and 5 percent translate into rather large numbers of presumably highly qualified people leaving the Federal Government. Some 15,609 people who received the highest performance rating ("outstanding") left the Government in 1987--about one-half (7,651) by resignations.

Table 1.
Turnover Rates by Performance Appraisal Rating

Available Performance Rating			Turnover (Number and Percent)									
			Total Separations		Resignations		Voluntary Retirements		Agency Separations		Other Separations	
	Number	Percent	No.	%	No.	%	No.	%	No.	%	No.	%
Total	1,167,872	100	78,729	7	39,995	3	25,740	2	2,467	-	10,527	1
Outstanding	247,854	21	15,609	6	7,651	3	5,564	2	115	-	2,279	1
Exceeds Fully Successful	435,394	37	23,670	5	10,915	3	9,039	2	289	-	3,427	1
Fully Successful	475,981	41	37,459	8	20,482	4	10,747	2	1,845	-	4,385	1
Minimally Satisfactory	4,440	-	853	19	378	9	201	5	93	2	181	4
Unsatisfactory	4,203	-	1,138	27	569	14	189	4	125	3	255	6

Note. Due to rounding, component turnover rates do not always add to the total separation rate. Dashes (-) indicate that the percent is less than one-half of 1 percent.

Agencies separated 2,467 employees for whom valid performance ratings were available in 1987. As expected, when viewed as a percentage of all employees in a rating category, the highest rates of agency-initiated separations were among employees with performance ratings of "unsatisfactory" and "minimally satisfactory." However, these accounted for the separation of only 125 "unsatisfactory" employees and 93 "minimally satisfactory" employees.

Since Federal agencies also separated approximately 3,000 other employees for whom performance appraisal ratings were not available, the total number of unsatisfactory and minimally satisfactory employees who were removed is likely to be higher than that indicated in the previous paragraph. Nevertheless, the total number of separations of less than successful employees is quite low and separations, per se, do not appear to provide the basis for an operationally effective way of improving the quality of the Federal work force.

In comparison to the rate at which employees with unsatisfactory performance ratings were separated by their agencies, agency separation rates (less than one-half of 1 percent) among employees performing successfully or better were negligible. However, in actual numbers, agencies separated *more workers* performing successfully or better (2,249) than workers whose performance was less than satisfactory (218).

Although agencies removed more fully successful or better employees than less than fully successful employees, further analysis is likely to show that most of the successful employees were removed for reasons other than performance, e.g., discipline or misconduct. In addition, the data are consistent with the findings that Federal managers tend not to give less than satisfactory performance ratings[29] and prefer strategies (e.g., informal counseling) other than low ratings or removals to remedy poor performance.[30]

Comparisons of Employees Who Resigned With Employees Who Stayed

Another way of looking at turnover data is to compare the group of employees who left the Government with the group of employees who stayed. Specifically, this section will compare the 69,298 employees who separated by resigning with the 1,416,069 employees who were still working for the Federal Government at the end of 1987.

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As table 2 shows, males accounted for 52 percent of the Federal work force that stayed but represented only 36 percent of the employees who resigned. Although it was shown earlier that younger workers resigned at substantially higher rates than older workers, younger workers represented a relatively small proportion of all the workers who resigned in 1987. Only about 18 percent of the workers who resigned in 1987 were 25 years of age or less. In comparison, 36 percent of those who resigned were between the ages of 31 and 40 years.

Employees who resigned were older and had more experience than expected. The average age of the employees who resigned in 1987 was 35 years, and 41 percent of the employees who resigned had 6 or more years of experience. Although employees in the intermediate age range resign at a relatively low rate, they comprise such a large proportion of the total work force that they outnumber the younger workers who resign.

In comparison to the average age of those who resigned, the average age of those who stayed was 42 years and the average age of those who retired was 60 years. The median age of employees in the national labor market is approximately 36 years, while the average retirement age in the United States is between 61 and 62 years.[31]

Performance appraisal ratings were available for 39,995 of the employees who resigned in 1987. Figure 5 shows that 46 percent of all the employees who resigned had performance ratings above "fully successful." The number of outstanding employees who resigned represented 19 percent of all the resignations in 1987. The loss of this many presumably high-performing employees may be a cause for concern, particularly if these losses are in critical or difficult-to-fill occupations.

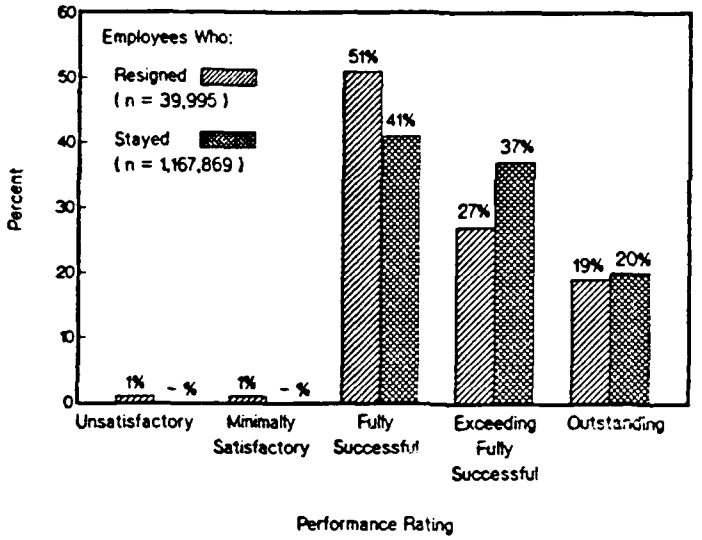
Over half (55 percent) of all resignations in 1987 were from grades 1 through 5, even though these grade levels represented only 26 percent of the work force. Several factors may be related to the disproportionate share of resignation in these grade levels. Each factor is related to an increase in the rate of turnover. First, employees in these lower grades are younger than their

Table 2.
Comparison of Employees Who Resigned and Stayed

Item	Percent of All Employees Who Stayed (1,416,069=100%)	Percent of All Employees Who Resigned (69,298=100%)
Sex		
Male	52	36
Female	48	64
Age		
Less than 21 years	-	2
21-25 years	5	16
26-30 years	10	21
31-35 years	14	20
36-40 years	17	16
41-45 years	16	10
46-50 years	13	6
51-55 years	11	4
More than 55 years	13	5
Average Age (in years)	(42)	(35)
Race		
Black, Not Hispanic	16	20
White, Not Hispanic	75	71
Hispanic	4	5
All Others	4	4
Length of Service		
Less than 1 year	5	19
1-3 years	10	26
4-5 years	8	14
6-10 years	20	23
11-15 years	18	11
More than 15 years	38	7
Grade Level		
GS 1-5 Combined	26	55
GS 6-10 Combined	31	28
GS 11-15 Combined	34	15
GS (Subtotal)	(91)	(98)
GM 13	4	1
GM 14	3	1
GM 15	2	-
GM (Subtotal)	(9)	(2)

Note. The percentages of the employees who stayed reflects the proportions with which each subgroup occurs in the full-time, permanent, white-collar work force. The total number of employees who stayed is larger than the study group, because it is based on the actual number of employees who were "on board" on December 31, 1987, rather than on the average number of employees in 1987. All percents are rounded and do not necessarily total to 100 percent. Dashes (-) indicate that the percent was less than one-half of 1 percent.

Figure 5.
Performance Ratings of Employees Who Resigned and Employees Who Stayed



counterparts in the higher grades. Second, employees in these grades tend to be more mobile and may be more likely to relocate. Third, since a large proportion of the employees in the lower graded positions are in entry-level positions, many employees in these positions are among the group of employees with the highest rate of turnover--i.e., employees with less than 1 year of service.

Finally, 4 of the 22 agencies in the study accounted for about two-thirds of all resignations in 1987: the Departments of Veterans Affairs (20 percent), the Treasury (17 percent), the Army (15 percent), and the Navy (11 percent). For the Departments of the Army and the Navy, the number of resignations was roughly in proportion to their size; but for the Departments of the Treasury and Veterans Affairs, the number of employees who resigned in 1987 was substantially higher than would be expected by the agencies' size alone. Agency turnover rates will be discussed in more detail in a later section of this report.

Turnover Rates by Occupational Series

Although many discussions about employee turnover focus on specific occupations, with few exceptions,[32] there have been no readily available Governmentwide studies of turnover rates by occupations.[33] Table 3 lists the 36 most populous, white-collar, Federal occupations and shows the 1987 rate of turnover for each occupation. Only the occupations with at least 10,000 employees are shown. Appendix E includes a more complete list of occupations in the Federal civil service, their turnover rates, and their rate of transfer.

Rates of turnover, as shown in table 3, varied considerably by occupation, ranging from the high total separation rate of 19 percent for practical nurses (GS-620) to the low rate of 4 percent for criminal investigators (GS-1811). Most of the variation in the total separation rates was the result of variations in the resignation rate. For example, practical nurses (GS-620), tax examiners (GS-592), clerk-typists (GS-322), nurses (GS-610), and mail and file clerks (GS-305) had resignation rates at least three times as great as the 5-percent Governmentwide average. With some exceptions, the remaining types of separations (i.e., voluntary retirements, agency separations,

Table 3.
Turnover Rates for Populous White-Collar Occupations

Job Series No.	Occupation	Number in Occupation	Turnover Rates (Percent)				
			Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations
0620	Practical Nurse	12,067	19	16	1	1	1
0592	Tax Examining	19,130	18	14	1	2	1
0322	Clerk-Typist	39,638	16	13	1	1	1
0621	Nursing Assistant	16,743	16	7	4	1	4
0610	Nurse	35,851	15	12	2	-	2
0305	Mail & File	17,748	15	10	2	2	1
0998	Claims Clerical	11,118	12	6	2	-	3
0303	Miscellaneous Clerk & Assistant	50,798	11	7	2	1	1
0962	Contact Representative	12,423	11	7	2	-	2
0318	Secretary	90,156	9	7	2	-	1
2005	Supply Clerical & Technician	27,462	9	4	3	-	1
2152	Air Traffic Control	22,782	9	3	3	3	1
0905	General Attorney	16,547	9	8	1	-	-
0081	Fire Protection & Prevention	10,557	9	4	2	-	3
0525	Accounting Technician	20,308	8	5	2	-	1
0105	Social Insurance Admin.	20,212	8	2	2	-	4
0203	Personnel Clerical & Assistance	11,349	8	6	1	-	1
1910	Quality Assurance	16,400	7	2	4	-	1
0512	Internal Revenue Agent	15,848	7	5	1	-	-
1101	General Business & Industry	13,544	7	3	3	-	1
1102	Contract & Procurement	28,377	6	2	2	-	1
0301	Misc., Admin., & Program.	26,094	6	2	3	-	1
0802	Engineering Technician	22,505	6	2	3	-	1
0856	Electronics Technician	19,882	6	1	4	-	1
1670	Equipment Specialist	11,299	6	1	4	-	1
0334	Computer Specialist	40,430	5	2	2	-	1
0801	General Engineering	18,020	5	2	3	-	1
0345	Program Analysis	17,028	5	1	2	-	1
0343	Management Analysis	15,787	5	2	2	-	1
0810	Civil Engineering	15,087	5	2	2	-	1
0511	Auditing	13,023	5	3	1	-	-
0830	Mechanical Engineering	13,009	5	3	2	-	-
0560	Budget Analysis	11,119	5	2	3	-	1
0510	Accounting	10,429	5	2	2	-	1
0855	Electronics Engineering	26,075	4	2	2	-	-
1811	Criminal Investigating	16,179	4	1	1	-	1

Note. Populous occupations are occupations with at least 10,000 employees. Due to rounding, component turnover rates do not always add to the total separation rate. Dashes (-) indicate that the percent is less than one-half of 1 percent.

and other separations) varied relatively little from occupation to occupation.

The variations among occupations are consistent with those found in a 1987 General Accounting Office (GAO) study of seven selected occupations.[34] Additional occupation-based studies would be useful to determine more precisely the nature of turnover in specific occupations. It may be that there are very different reasons that high percentages of employees are leaving two different occupations.

There are many potential reasons employees leave the Government. Dissatisfaction with pay may be one reason, but it is not the only reason. The 1987 GAO study found that although chemists had the highest overall pay gap with the private sector, they also had the lowest quit rate, while secretaries, with the smallest gap of the seven occupations studied, had the highest rate.[35] Any remedies for a turnover problem will need to be based, as much as possible, on the specifics of the case.

Computer specialists, general engineers, mechanical engineers, electronics engineers, accountants, and criminal investigators were among the more populous Federal occupations with some of the lowest turnover rates. Total separation rates for these occupations were 5 percent or less. Resignation rates were 3 percent or less. There is the perception by some that turnover problems are particularly severe among these occupations. This general belief is not supported by the findings of this study.

Perceptions of a turnover problem in these occupations may derive more from difficulties currently being experienced in recruiting for these occupations than from any actual loss of large numbers of employees. However, again it must be noted that the rate of turnover for these occupations may be alarmingly high among some subgroups or in some locations. Also, even small losses can be a problem, if the employees leaving are among the most experienced and outstanding employees. Such losses become particularly serious when they occur in critical occupations or in occupations that cannot tolerate a vacancy or an inexperienced replacement.

Finally, the low rate and relatively small number of separations in these occupations suggest that the greatest relief from expected shortages in these occupations is not likely to come from a reduction in turnover. Although reducing turnover among experienced and outstanding employees would be desirable, the major source of personnel to meet anticipated demands is likely to derive from increased recruiting efforts, both within and outside the organization. More and more, such efforts are likely to require extensive training or retraining to ensure the candidates have the skills required to perform the work.

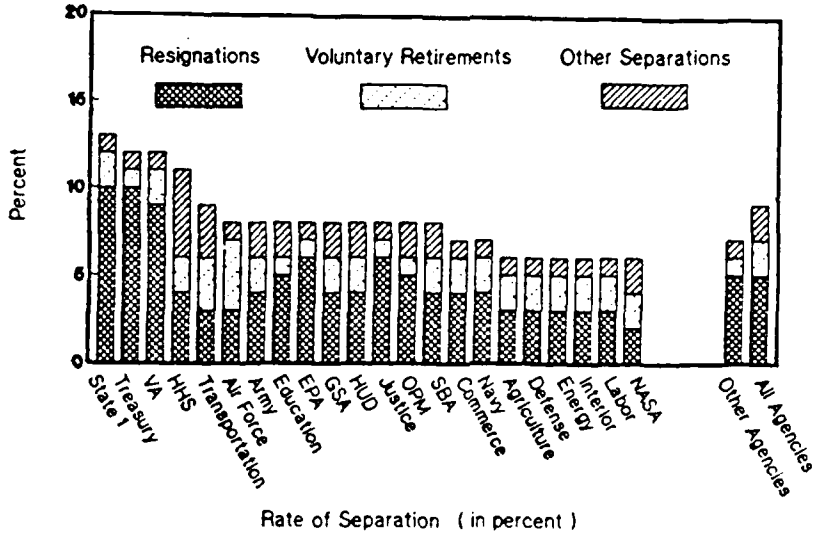
Although most occupations had negligible rates (less than one-half of 1 percent) of agency-initiated separations, air traffic controllers were separated by the Federal Aviation Administration of the Department of Transportation at the relatively high rate of 3 percent of all controllers. This relatively high rate of agency-initiated separations primarily reflects the automatic discharge of employees who failed to perform satisfactorily in the formal training program during their probationary period.

Turnover Rates by Selected Federal Agencies

Turnover rates varied from one Federal agency to another, as is shown in figure 6. The turnover rates for the agencies reflect both the unique compositions of agency work forces as well as the differential impact of outside influences on individual agencies--e.g., budget cuts. Similar to the occupational variations, agency variations in the rates of turnover primarily reflect the variations in the rates at which employees resigned from the different agencies. Appendix D contains more detailed information about the turnover rates for each of the 22 agencies included in this study.

In 1987, the highest total separation rate was 13 percent for the Department of State. This statistic, however, must be interpreted with caution, since it applies to less than one-half of the nearly 15,000 full-time, permanent employees in the Department of State. Because the study group excluded employees in overseas positions, most Foreign Service positions were not included in this analysis. The study group did include, however, about 2,000 Foreign Service positions located in the United States. Since some Foreign Service employees rotate into these positions prior to leaving the Department of State, this subgroup has a relatively high turnover rate that disproportionately elevates the average turnover rate for the State Department employees in the study. A recent OPM estimate of turnover for the approximately 4,400

Figure 6.
Turnover Rates for Selected Federal Agencies



[1] Based only on positions located in the United States.

General Schedule employees of the Department of State was 10 percent--a rate only slightly higher than the Governmentwide average of 9 percent.[36]

The Departments of the Treasury and Veterans Affairs each had the next highest turnover rate of 12 percent, while the Department of Health and Human Services (HHS) had a turnover rate of 11 percent. The high rate of turnover in the Department of the Treasury is directly related to several large occupations in the Internal Revenue Service that have particularly high separation rates--e.g., tax examiner (18 percent) and data transcriber (52 percent).

The high rate of turnover in the Department of Veterans Affairs reflects, in part, the large proportion of health-related occupations in that organization. These occupations, as a group, have a particularly high rate of turnover. A more detailed analysis would be required to determine what factors are most directly related to the high rate of turnover in these occupations. For example, what is the average tenure of employees in these occupations? To what extent do employees in these occupations leave the Federal Government only to return and leave again?

The high rate of turnover for HHS is less easily interpreted. Unlike the other agencies with high total separation rates, HHS's high rate derives largely from its relatively high rate of "other separations," which includes both agency-initiated separations, reductions in force, and similar types of separation. This reflects the disproportionate cutbacks in personnel that were experienced by HHS during 1987, such as the consolidations of offices in the Social Security Administration.

The lowest total separation rate for any of the 22 agencies was 6 percent. This lowest rate was shared by the Departments of Agriculture, Defense, Energy, the Interior, and Labor, and NASA.

Since separation rates vary significantly by length of service, grade level, and occupation, the composition of the work force in each agency has a significant impact on the agency's turnover rate. Table 4 shows how widely agencies differ in the occupational composition of their work forces. The five occupational groupings shown are based on the PATCO (Professional, Administrative, Technical, Clerical, and Other) system of classification, developed by OPM.[37]

Similar differences among agencies would be evident in comparisons involving other classification systems. The agency comparison with the PATCO system shows, for example, that fewer than 10 percent of the positions at OPM, the Small Business Administration, and the General Services Administration were classified as PATCO "professional" occupations (i.e., occupations typically requiring advanced education and training in specialized technical fields). This contrasts with NASA, where 56 percent of the positions were classified as "professional" positions. Because employees in professional occupations resign at different rates than employees in nonprofessional positions, the difference in the compositions of agency work forces will impact on agency turnover rates. Therefore, given the different missions and occupations represented in the Federal agencies, differences among agencies in turnover rates are not unexpected.

In table 4, the unusually high percentage (25 percent) of "other" occupations in the Department of Justice reflects the large number of law enforcement occupations in that agency. It includes mostly correctional officers (GS-007), U.S. marshalls (GS-082), guards (GS-085), and border patrol agents (GS-1896). These types of occupations are classified as "other" in the PATCO system.

Table 4.
Composition of Selected Federal Agencies by PATCO Occupational Categories

	PATCO Occupational Categories (Percent of Agency Work Force)				
Agency	Professional	Administrative	Technical	Clerical	Other
Agriculture	36	15	34	15	-
Air Force	14	34	22	27	3
Army	18	30	21	28	3
Commerce	38	20	22	19	1
Defense	20	47	10	23	1
Education	26	44	10	19	-
Energy	37	34	10	16	3
EPA	48	29	7	16	-
GSA	9	46	17	21	8
HHS	14	44	16	26	-
HUD	11	58	9	23	-
Interior	34	27	22	16	1
Justice	11	35	13	17	25
Labor	20	45	17	18	-
Navy	24	26	24	22	4
NASA	56	18	13	11	1
OPM	4	53	13	30	-
SBA	9	57	14	20	-
State	23	38	13	26	-
Treasury	16	31	22	31	1
Transportation	11	58	21	8	-
VA	36	9	33	20	1
All Other Agencies	25	41	14	19	2

Note: Due to rounding, percents do not always add to 100 percent. Dashes (-) indicate that the percent is less than one-half of 1 percent.

Turnover Rates by Selected Demographic Characteristics

Table 5 shows how the separation rate of the study group varied for different demographic subgroups. Total separations tended to be higher for women than men (10 percent versus 7 percent). Blacks and Hispanics had separation rates slightly higher than those for whites and other race/ethnic-origin subgroups.

Not considering other related factors, the rate of total separations drops as level of education rises. The rate of resignations, however, rises up to the associate of arts degree level and then drops with increased levels of education. The voluntary retirement rate was slightly above average for people with a high school or lower level of education.

Because demographic characteristics are so highly related to other factors that influence turnover rates--e.g., grade level and occupation--care must be taken not to attribute any causal relationships between these demographic characteristics and turnover.

Table 6 includes the separation rates for different grade levels and supervisory status. The highest separation rates were in the lower grades. As discussed earlier, employees in these grade levels are frequently in situations that contribute to high rates of turnover.

Table 5.
Turnover Rates by Sex, Age, Race, and Level of Education

Group/Subgroup	Number	Percent	Turnover Rates (Percent)				
			Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations
Grand Total	1,396,422	100	9	5	2	-	1
Sex							
Male	727,032	52	7	3	3	-	1
Female	669,385	48	10	7	2	-	1
Age							
Less than 21 years	5,667	-	33	28	-	3	1
21-25 years	66,374	5	19	16	-	1	1
26-30 years	142,219	10	11	10	-	1	-
31-35 years	197,340	14	8	7	-	1	1
36-40 years	249,758	18	5	5	-	-	1
41-45 years	217,097	16	4	3	-	-	1
46-50 years	178,878	13	4	2	-	-	1
51-55 years	162,632	12	8	2	4	-	2
56-60 years	109,424	8	13	2	9	-	2
61-65 years	51,179	4	23	1	20	-	2
66-70 years	12,552	1	27	1	24	-	2
71-75 years	2,653	-	26	1	22	-	3
More than 75 years	613	-	25	1	20	-	4
Race							
Black, Not Hispanic	224,560	16	10	6	2	1	2
White, Not Hispanic	1,054,350	76	8	5	2	-	1
Hispanic	58,318	4	9	6	2	1	1
All Others	59,195	4	8	5	1	-	1
Education Level							
Less than High School	24,284	2	13	4	6	1	2
High School or Equivalent	580,606	42	10	5	3	-	1
Some College, No Degree	197,816	14	10	6	2	1	1
Associates Degree	62,917	5	9	7	1	-	1
Bachelors Degree	371,295	27	7	4	1	-	1
Masters Degree	104,171	7	6	3	1	-	1
Doctorate	22,899	2	5	3	2	-	1
Other	29,600	2	9	5	2	-	1

Notes. Due to a very small number of missing data in the CPDF, the total number of employees in the subgroups is not the same as the grand total. Due to rounding, component turnover rates do not always add to the total separation rate. Dashes (-) indicate that the percent is less than one-half of 1 percent.

The particularly high separation rate of 66 percent for GS-2 employees reflects, in part, the large proportion of seasonal employees at this grade level. (See appendix F for more information about seasonal employees.) Seasonal employees, especially in IRS, increase the average number of employees in that grade level from 5,281 to nearly 9,000 employees in the month of March. This large temporary increase is not reflected in the definition of average employment used to calculate turnover in this study. Consequently, for

Table 6.
Turnover Rates by Supervisory Status and Grade Level

Employee Group	Number	Percent	Turnover Rates (Percent)				
			Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations
GRAND TOTAL	1,396,422	100	9	5	2	-	1
SUPERVISORY STATUS							
Supervisor	181,006	13	6	1	4	-	1
Nonsupervisor	1,209,683	87	9	6	2	-	1
GRADE LEVEL							
GS Grades							
Grade 1	138	-	24	15	-	5	4
Grade 2	5,281	-	66	56	-	8	1
Grade 3	42,353	3	23	18	1	3	1
Grade 4	134,857	10	14	10	1	1	1
Grade 5	181,264	13	10	7	2	-	1
Grade 6	90,297	6	9	5	2	-	1
Grade 7	135,053	10	8	5	2	1	1
Grade 8	30,558	2	8	4	3	-	1
Grade 9	157,424	11	8	4	2	-	1
Grade 10	27,654	2	8	2	3	-	3
Grade 11	189,986	14	6	3	3	-	1
Grade 12	182,912	13	5	2	3	-	1
Grade 13	59,222	4	5	2	2	-	1
Grade 14	22,760	2	5	2	2	-	1
Grade 15	12,237	1	8	3	3	-	2
Grades 1-5	363,893	26	14	10	1	1	1
Grades 6-10	440,986	31	8	4	2	-	1
Grades 11-15	467,117	34	6	2	3	-	1
Grades 1-15 (Subtotal)	1,271,996	(91)	9	5	2	-	1
GM Grades							
Grade 13	57,792	4	5	1	3	-	1
Grade 14	41,179	3	5	1	3	-	1
Grade 15	24,761	2	6	1	3	-	1
Grades 13-15 (Subtotal)	123,732	(9)	5	1	3	-	1

Notes. Due to a very small number of missing data in the CPDF, the total number of employees in the subgroups is not the same as the grand total. Due to rounding, component turnover rates do not always add to the total separation rate. Dashes (-) indicate that the percent is less than one-half of 1 percent.

subgroups with a large proportion of seasonal employees, the turnover rate will be higher than average. When the larger average employment estimate is used to calculate turnover, the rate of total separations for GS-2's drops from 66 percent to 39 percent.[38] The effect at other grade levels was negligible.

Total separation rates for GM 13-15 employees were about half (5 percent versus 9 percent) the rate for all the GS grades combined (i.e., GS 1-15). However, one-to-one comparisons of GS and GM 13's, 14's, and 15's, suggest that although their total separation rates are similar, resignation rates were at least twice as high (2 to 3 percent versus 1 percent) for GS than GM employees.

Many of the GM employees at the 13, 14, and 15 level are supervisors--a group that is generally more satisfied with their job than nonsupervisory employees. This may help account for their lower rate of turnover. Table 6 confirms that supervisors left the Government at a rate substantially below (6 percent versus 9 percent) the rate of their nonsupervisory counterparts.

Analysis of Selected Turnover Variables and Occupations

To gain greater insight into some of the variables related to turnover, we obtained more detailed information about some of those variables and selected occupations. The information is exploratory, but it helps illustrate how complex turnover issues can be and highlights some of the issues that emerge from a more detailed analysis. Work force planners in the Federal agencies should be able to provide even more of the necessary and meaningful details that are required to properly evaluate a particular turnover situation than is presented here.

Secretaries. The rate of secretarial resignations for each of the 22 agencies was examined to see whether they left Federal service from some agencies at a higher rate than other agencies. Table 7 shows that the resignation rate of secretaries (GS-318) ranged from a low of 4 percent at the Department of Labor to a high of 9 percent at the Department of Justice, the General Services Administration, and the Small Business Administration. Voluntary retirements, agency separations, and other separations of secretaries occurred at relatively low rates of 2 percent or less for all agencies.

Although the variation among agencies in the rates of resignation are not large and may be due, in part, to the relatively smaller number of employees involved, it would be of interest to determine to what extent these differences are pervasive. Given the commonality of the occupation, what nonchance factors account for the variation? Is the variation related to differences in the average grade levels of secretaries in the agencies? Is it related to the type of work or the work environment? Do some agencies place greater emphasis on the upward mobility of their secretaries than other agencies? Is the variation among agencies related to the location of work--i.e., do secretaries in some agencies work in locations where there are more opportunities for advancement than in other agencies?

A cursory comparison of resignation rates and the overall job satisfaction level of employees in each agency did not suggest a direct relationship. For example, Department of Labor employees, as a whole, had a relatively low level of overall job satisfaction in comparison to other Federal agencies in a 1986 survey conducted by MSPB.[39] The Department of Labor, however, had the lowest rate of resignations for secretaries.

To permit a more detailed look at the rate at which secretaries left agencies, transfer rates were included in table 7. Again, a variation among agencies is evident. Secretaries transferred from OPM and GSA at the rates of 11 and 12 percent--more than twice the Governmentwide transfer rate of 5 percent for secretaries. NASA and the Department of State had transfer rates of only 2 percent. All the questions raised in terms of resignation rates apply to transfers. In addition, it might be of interest to determine to what extent the secretaries who transfer remain in the secretarial job series.

Computer specialists. Another occupational series of considerable current interest is that of computer specialist (GS-334). Table 8 shows how the resignation and retirement rates for computer specialists vary by grade level. Of the 1,889 computer specialists who separated from the Federal Government in 1987, 883 separated by resigning and 706 separated by

Table 7.
Secretaries (GS-318): Resignation and Transfer Rates in Selected Federal Agencies

AGENCY	Number of Secretaries	Percent of Secretaries	Rate (Percent) of	
			Resignations	Transfers
Total	90,156	100	7	5
Agriculture	3,189	4	5	5
Air Force	14,997	17	6	4
Army	16,579	18	6	4
Commerce	1,668	2	5	6
Defense	4,189	5	7	8
Education	439	-	8	7
Energy	1,452	2	6	5
EPA	1,240	1	8	5
GSA	688	1	9	11
HHS	5,904	7	6	4
HUD	923	1	5	6
Interior	2,938	3	5	5
Justice	2,183	2	9	6
Labor	1,265	1	4	6
Navy	10,247	11	7	5
NASA	1,712	2	6	2
OPM	217	-	7	12
SBA	173	-	9	5
State	870	1	8	2
Treasury	6,607	7	8	6
Transportation	2,779	3	6	5
VA	6,380	7	7	4
All Other Agencies	3,517	4	6	6

Note. Due to rounding, percents do not total to 100 percent. Dashes (-) indicate that the percent is less than one-half of 1 percent. Transfer rates refer to individuals leaving each of the agencies shown.

voluntarily retiring, as is shown in table 8. Most (72 percent) computer specialists were found in grades 11, 12, and 13. At these levels, the rates of resignation were relatively low: 3 percent of the GS 11's resigned, 2 percent of the GS 12's, and 1 percent of the GS 13's. These rates are considerably below the Governmentwide average of 5 percent and do not support conventional wisdom that computer specialists are leaving the Federal Government in large numbers.

The discrepancy between conventional wisdom and these findings suggests that the turnover picture is more complicated than it appears and requires close scrutiny. There are a number of possible reasons why popular perceptions about computer specialist turnover are not supported by the data. For example, turnover rates might be alarmingly high among some subgroups of computer specialists or in some locations but are "hidden" in the bigger picture. It may be that the computer specialists who left were among the most outstanding or dedicated employees. Or, the ones who left may have vacated particularly critical positions, but the impact of their departure is not evident in the statistics. Or, they vacated positions that were particularly difficult to fill. In the

Table 8.
Computer Specialists (GS-334): Turnover and Transfer Rates by Grade Level

Grade Level	Total Number	Percent of Total	Turnover				Transfers	
			Resignations		Retirements			
			Number	Percent	Number	Percent	Number	Percent
Total	40,430	100	883	2	706	2	926	2
GS 5	1,116	3	58	5	0	-	18	2
GS 7	2,408	6	115	5	2	-	37	2
GS 9	4,347	11	134	3	21	-	121	3
GS 11	8,694	21	245	3	159	2	253	3
GS 12	13,164	33	208	2	274	2	267	2
GS 13	7,176	18	90	1	159	2	151	2
GS 14	2,724	7	24	1	69	3	70	3
GS 15	801	2	9	1	22	3	9	1

Note. Due to rounding, percents do not total to 100 percent. Dashes (-) indicate that the percent is less than one-half of 1 percent.

last-named case, the problem is not so much a turnover or retention problem as a recruiting problem.

The findings also suggest that efforts to head off anticipated computer personnel shortfalls by reducing the rate at which computer specialists leave Government will not be very successful, in and of themselves. Personnel shortfall in this occupation are best dealt with through a multi-faceted approach, e.g., recruitment initiatives as well as retention efforts.

Tax examiners. The third occupation selected for a more focused analysis was tax examiner (GS-592). Although tax examiner is a single-agency occupation, it is a large (19,140 employees) occupation and it had a notably high rate of resignations--14 percent versus the Governmentwide average of 5 percent. To examine this rate more closely, tax examiner resignation rates were analyzed by length of service. Table 9 shows extremely high resignation rates among new tax examiners--61 percent for those with less than 1 year of experience and 22 percent for those with 1 to 3 years of experience.

This high rate of turnover in the tax examiner occupation must be interpreted within its larger context. First, this occupation, in the Internal Revenue Service of the Department of the Treasury, is very diverse and includes a wide variety of different jobs and job settings. Second, it includes both nonseasonal as well as seasonal positions. Third, many positions in this occupation require minimal levels of education and involve highly routine work. Fourth, many of the positions are of a relatively low level--i.e., grades 2, 3, and 4.

All these factors are related to high turnover. It is also expected that the low-level positions are predominantly filled by new hires, many of whom are seasonal employees. Both of these employee groups have particularly high rates of turnover.

Clearly, the magnitude of the resignation rate alone, especially during the first year, suggests that this is a unique occupation. Certainly the cost involved in annually selecting, training, and replacing these

Table 9.
Tax Examiners (GS-592): Turnover and Transfer Rates by Length of Service

Length of Service	Total Number	Percent of Total	Turnover				Transfers	
			Resignations		Retirements			
			Number	Percent	Number	Percent	Number	Percent
Total	19,130	100	2,744	14	243	1	320	2
Less than 1 year	1,999	10	1,211	61	0	-	61	3
1 - 3 years	4,134	22	898	22	0	-	123	3
4 - 5 years	1,725	9	222	13	0	-	45	3
6 - 10 years	4,189	22	252	6	12	-	54	1
11 - 15 years	3,623	19	116	3	47	1	19	1
16 - 20 years	1,980	10	33	2	61	3	10	1
21 - 30 years	1,303	7	12	1	95	7	8	1
Over 30 years	177	1	0	-	28	16	0	-

Note. Due to rounding, percents do not total to 100 percent. Dashes (-) indicate that the percent is less than one-half of 1 percent.

employees is not trivial. It must be noted that the resignation rates reported are average rates for that group. Consequently, some subgroups within the occupation will have lower rates, while others will have even higher rates.

In evaluating the significance of the high resignation rate, it would be worthwhile to identify those subgroups for which turnover was particularly high and to isolate the relevant contextual factors. For example, is the pay too low? Is the work considered too boring? What is the work environment like? Are the production schedules realistic? Are employees adequately trained? How difficult is it to recruit, replace, and train replacements for the employees who resigned? Are the right people being selected for the job? Why do seasonal employees resign from the Federal Government rather than transfer to a permanent position in the same or a related occupation?

These are just some of the questions that warrant answers. Again, the answers are best obtained by those closest to the occupation being studied.

Depending on the answers to these and other questions, remedies can be developed, recognizing that many conditions and circumstances will be beyond the control of agency policymakers and managers. However, where control is possible, implementation of positive steps to reduce turnover would appear, particularly in this situation, to have the potential for significant cost savings and an improved work force.

Transfer Rates

While this report provides the Governmentwide benchmarks for initial comparisons of separations from the Federal Government, agency-level analyses of turnover also need to consider transfers to other Federal agencies. Transferring from one agency to another is not a form of turnover or separation for the purposes of this study, but it is of interest because it is turnover at the agency level and it affects an agency's operations on a day-to-day basis.

FINDINGS

The Governmentwide rate of transfer in 1987 was 2 percent (32,691) of the employees in the study group. Because the CPDF records a personnel move as a "transfer" only when an employee moves from one Federal agency to another, movement of employees within agencies is not included in the CPDF. These latter types of moves may, in fact, be the most common, particularly in some of the larger Federal agencies.

OPM and the General Services Administration (GSA) had unusually high overall transfer rates of 7 and 10 percent, respectively. When transfers are added to the total number of employees who left the Government from OPM and GSA, these two agencies had two of the highest levels of agency turnover. While this may present a personnel problem for these two agencies, it also suggests that employees with central management agency experience are transferring their expertise into the other Federal agencies. This transfer of expertise may have a positive effect on the Government's work force as a whole.

It may be desirable to conduct a followup study that focuses specifically on employee transfers and the effects this type of turbulence has on the organizations involved and on the Federal Government as a whole. For example, what proportion of the transfers are promotions? What proportion involve a change in occupations? If employees who transfer are relatively high-performing employees and if they transfer their abilities to another Federal agency, this could be one example of employee turbulence that is healthy and highly desirable from a Governmentwide perspective.

CONCLUSIONS

The results of this study clearly show that turnover is a complex phenomenon that is most strongly, but not solely, related to the age and length of service of Federal employees. The results indicate that substantial proportions of new hires leave the Federal Government within the first 3 years of service. Replacing these losses is not always an easy task, and is almost always costly.

Federal agencies may wish to compare their own experiences with turnover against the data presented in this report. In making these comparisons, care must be taken that the definitions of turnover and the specifications of the comparison groups are similar. Variances from the Governmentwide data may suggest areas for attention or more detailed analysis within the agency.

The data must always be considered within the context of the individual organization or occupation. What may appear to be a turnover problem on the surface, may be in reality a healthy infusion of new blood or the successful removal of poor performers.

Turnover problems, of course, should not be confused with recruiting problems. Occupations with recruiting problems are not necessarily the same as occupations with turnover problems. Nor should managers expect to or be able to control all turnover. For example, employees often leave for personal reasons or for reasons associated with the labor market outside the organization. Agencies may wish to investigate the reasons their employees are leaving. MSPB has conducted a recent survey of employees leaving the Federal Government and will report the results in the second report of this series.

It must also be noted that the reasons people leave are not necessarily the opposite of the reasons people stay. For example, while employees may leave because they are dissatisfied with their pay, this does not mean that employees who stay are satisfied with their pay. Employees who stay may be staying for the "wrong" reasons--i.e., reasons unrelated to greater productivity, such as, "work is easy." Employees who are staying for the wrong reasons may be even more costly to an organization than employees who left and could be replaced by more productive workers.

Finally, because this report focuses only on separations from the Federal Government and not transfers, turnover rates at the level of an agency or organizational unit are likely to be higher than those reported in this study. The data in this report provide a Governmentwide framework for the study of turnover. To the extent that Federal managers have the necessary information and understanding about employee turnover, they will be able to take the appropriate steps to effectively manage and control this costly human resource phenomenon--today and in the future.

NOTES

[1] Congressional Budget Office, "Employee Turnover in the Federal Government," February 1986, pp. 27-30.

[2] General Accounting Office, "Managing Human Resources: Greater OPM Leadership Needed to Address Critical Challenges," January 1989, p. 16.

[3] General Accounting Office, "Federal Work Force: A Framework for Studying Its Quality Over Time," August 1988, pp. 58-65.

[4] U.S. Office of Personnel Management, "Civil Service 2000," June 1988, pp. 29-33.

[5] General Accounting Office, "Managing IRS: Actions needed to Assure Quality Service in the Future," October 1988, pp. 4-6. See also, Washington Post, "Federal Employment 'Crisis': In Some Places, It's Arrived," Oct. 10, 1988.

[6] U.S. Merit Systems Protection Board, "Federal Personnel Policies and Practices–Perspectives from the Workplace," December 1987, p. 17. Also see: Clark, Timothy and Wachtel, Marjorie, "The Quiet Crisis Goes Public," Government Executive, June 1988; and National Commission on the Public Service, "Leadership for America: Rebuilding the Public Service," May 1989.

[7] Turnover among members of the Senior Executive Service will be covered in a separate MSPB report to be released in late summer or early fall, 1989.

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[22] U.S. Office of Personnel Management, "Civil Service 2000," June 1988, pp. 40-41.

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[29] U.S. Merit Systems Protection Board, "Toward Effective Performance Management in the Federal Government,"
Mar. 18, 1988, p. 7.

[30] U.S. Merit Systems Protection Board, "Federal Personnel Policies and Practices: Perspectives from the Workplace,"
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[32] General Accounting Office, "Federal Workforce: Pay, Recruitment, and Retention of Federal Employees," February 1987.

[33] Although OPM annually prepares an Occupational Series Dynamics Report that provides detailed turnover data by occupations, the computer printouts of this report are not widely distributed and are not in a format suitable for most Federal policymakers and managers.

[34] General Accounting Office, "Federal Workforce: Pay, Recruitment, and Retention of Federal Employees," February 1987.

[35] Ibid, p. 3.

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[37] U.S. Office of Personnel Management, "Federal Personnel Manual, Supplement 292-1," Book IV, May 14, 1985, pp. 15-16.

[38] U.S. Office of Personnel Management, "Occupational Series Dynamics Report, FY 1987," unpublished report, p. 1.

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APPENDIX A:

SUMMARY OF MAJOR FINDINGS

■ Full-time, permanent, white-collar employees left their jobs with the Federal Government during 1987 at a rate of about 9 percent (119,669 of the 1.4 million full-time, permanent employees).

■ The Governmentwide resignation rate was 5 percent (69,298) of the work force in 1987. Over half (58 percent) of all the separations in 1987 were resignations..

■ Federal employees retired at an average rate of 2 percent (30,211). One-fourth (25 percent) of all separations were voluntary retirements.

■ About 5 percent (5,419) of all separations were agency-initiated separations, while 12 percent (14,741) consisted of "other" separations.

■ Among the most populous occupations, the highest total separation rates in 1987 were for:

- Practical Nurse (GS-620) 19 percent
- Tax Examiner (GS-592) 18 percent
- Clerk/Typist (GS-322) 16 percent
- Nursing Assistant (GS-621) 16 percent
- Nurse (GS-610) 15 percent
- Mail/File Clerk (GS-305) 15 percent

■ Among the most populous occupations, some of the lowest total separation rates (5 percent or less) were for:

- Computer Specialist (GS-334)
- General Engineer (GS-801)
- Mechanical Engineer (GS-830)
- Auditor (GS-511)
- Budget Analyst (GS-560)
- Accountant (GS-510)
- Program Analyst (GS-345)
- Management Analyst (GS-343)
- Civil Engineer (GS-810)
- Electronics Engineer (GS-855)
- Criminal Investigator (GS-1811)

APPENDIX A

■ During 1987, a total of 15,609 "outstanding" employees separated from the Government–nearly half (7,651) of these separated by resigning. One out of five (19 percent) of all resignations were from employees with "outstanding" performance ratings.

■ A total of 1,991 employees with performance ratings below "fully successful" (i.e., "minimally satisfactory" or "unsatisfactory") left or were separated from the Government in 1987.

■ The separation of Federal employees with less than 1 year experience was 25 percent. This rate dropped to 4 percent for employees with 16 to 20 years of service.

■ Although the highest separation rates occurred among younger workers, the number of older workers who resigned was considerably larger. Of the 69,298 people who resigned from the Federal service in 1987, 36 percent (25,044) were between the ages of 31 and 40.

■ The average age of the employee who resigned was 35 years, and about 41 percent of the 69,298 employees who resigned had at least 5 years of experience.

■ The retirement rate increased sharply after 20 years of service. Employees with more than 30 years of service retired at a 20-percent rate in 1987.

■ Sixty percent of the employees in the study group were between the ages of 31 and 50 years. As this large group reaches retirement age, turnover rates can be expected to increase.

■ The rate at which employees left the Federal Government varied from agency to agency in 1987:

Above Average Rates of Separation		Lowest Rate (6 percent each)
State (U.S. positions only)	13 percent	Defense
Treasury	12 percent	Interior
VA	12 percent	Agriculture
HHS	11 percent	Labor
		Energy
		NASA

■ Although not included in the Governmentwide turnover rate, Federal employees also transferred from one Federal agency to another or changed jobs within their agency. Among the approximately 1.4 million employees studied, 2 percent (32,691) transferred during 1987. A much higher percentage would have changed jobs within their agency.

APPENDIX B:

TURNOVER RATES FOR SELECTED FEDERAL EMPLOYEE GROUPS

Employee Group/Subgroup	Number	Percent	Turnover Rates (Percent)				
			Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations
CPDF TOTAL	**2,018,931**	**100**	**17**	**8**	**2**	**1**	**6**
WORK SCHEDULE							
Full-time	1,873,862	93	14	7	2	1	4
Part-time	84,046	4	47	26	1	2	17
Intermittent	60,972	3	57	16	-	2	40
TYPE OF APPOINTMENT							
Permanent							
Career	1,489,768	74	7	3	3	-	1
Career-Conditional	342,145	17	16	13	-	2	1
Non-Permanent							
Temporary	180,021	9	99	41	-	3	54
TYPE OF PAY PLAN–TOTAL (Permanent Employees)	**1,836,726**	**100**					
Competitive (subtotal):	**(1,599,265)**	**(87)**					
GS & Equivalent	1,175,821	64	9	5	2	-	1
GM & Equivalent	116,707	6	5	1	3	-	1
Wage Grade - Nonsupervisory	278,354	15	8	3	3	1	1
Wage Grade - Supervisory	28,380	2	10	1	7	-	1
Excepted (subtotal):	**(196,568)**	**(11)**					
GS & Equivalent	138,977	8	11	8	1	-	2
GM & Equivalent	7,222	-	7	3	1	-	2
Wage Grade - Nonsupervisory	45,707	2	7	4	1	1	2
Wage Grade - Supervisory	4,658	-	9	1	5	-	3
Other (SES, Unspecified Pay Plans)	**(40,892)**	**(2)**					

Note. Data for this table includes all employees in the Central Personnel Data File. Due to rounding, percents do not always add to the total separation rate. Dashes (-) indicate that the percent is less than one-half of 1 percent.

APPENDIX C:

DEFINITION OF TURNOVER

It is important in any turnover study to have a precise definition of turnover. The particular definition chosen must fit the purpose for the study.

Since the turnover data for this study were derived from the Central Personnel Data File (CPDF) of the U.S. Office of Personnel Management, the definition of turnover for this study had to be consistent with the information available in that data base. To the extent possible, the definition also needed to be consistent with the literature on turnover, which recommends that turnover be differentiated into voluntary and involuntary turnover.[1] Presumably, voluntary turnover is avoidable, while involuntary turnover is not.

The Federal Personnel Manual[2] shows that there are 17 different separation codes for employees who leave a Federal agency. One separation code (i.e., code 352) refers to Federal employees who leave one Federal agency to work for another Federal agency. Since such "transfers" do not result in the loss of an employee to the Federal Government, these transfers are not included in the definition of turnover for this study.

The remaining 16 separation codes were categorized, to the extent possible, into three groups. The first group consisted of those separations that were primarily voluntary and under the control of the employee. The second group of separations consisted of separations that were also primarily voluntary, but which were more under the control of the Federal agency.

Although the first two groups of separations are characterized as voluntary, this is not to imply that they are necessarily all avoidable. For example, an employee may voluntarily resign to move with a spouse who has been transferred to another location. Such resignations are seldom avoidable—especially from the perspective of the supervisor of the resigning employee.

The third group of separations are more complex. This group includes separations of all types, but for which the controlling agent is less clear or unknown. For example, it included separations that could be initiated either by the employee or the agency. It could also include separations due to outside factors—e.g., the health of a spouse--which are generally beyond the control of both the employee and the agency.

Although the CPDF also includes legal authority codes that could further clarify the precise nature of the separation, analysis at that level of detail was not considered appropriate or useful for the purposes of this particular study. Consequently, all definitions of turnover are restricted to those based on the "nature of action" codes of the CPDF.

[1] Abelson, Michael A., "Examination of Avoidable and Unavoidable Turnover," Journal of Applied Psychology, Vol. 72, No. 3, 1987, pp. 382-386.

[2] U.S. Office of Personnel Management, "Federal Personnel Manual, Supplement 296-33," Chapters 30 and 31.

APPENDIX C

Table C-1 shows how the 17 different separation (nature of action) codes were categorized for the purposes of this study. Total separations refer to all separations from the Federal Government. The total separations are categorized into four types: resignations, voluntary retirements, agency-initiated separations, and other separations. The first two are considered employee-controlled, the third is considered agency-controlled, and the fourth has multiple or unknown controlling agents.

More specifically, resignations were defined as those separations in which the employee "controls" or initiates the request to be separated. Voluntary retirements included retirements where: (1) the employee has the appropriate combination of age and service to permit voluntary retirement; or (2) the employee without the required age and service requirements is offered an early retirement option by their agency because of a reduction in force, reorganization, or transfer of function. All other types of retirement--e.g., disability retirements--were included as other separations.

Agency separations included all actions controlled and initiated by the agency to separate employees from the Federal work force. This included separations for an employee's inability to perform the work, for unacceptable performance, or for conduct--i.e., removals, disability terminations, and discharges.

The final separation category, other separations, included all remaining separations where the controlling factors were less clear or unknown--e.g., separations for reasons of health, separations (either resignations or retirements) in lieu of involuntary action against the employee by the agency, and deaths. Note that this category also includes separations due to the expiration of the appointment (i.e., code 355). This type of separation is shown for completeness, but it does not apply to the permanent positions that are the focus of this study.

APPENDIX C

Table C-1.
Turnover Defined in Terms of Nature of Action Codes

NATURE OF ACTION[1]	Separation Code	TURNOVER				TRANSFERS
		Employee-Controlled		Agency-Controlled	Other	
		Resignations	Voluntary Retirements	Agency Separations	Other Separations	
Resignation	317	X				
Retirement-Voluntary	302		X			
Retirement-Special Option	303		X			
Removal	330			X		
Termination-Disability	354			X		
Discharge during probation	385			X		
Discharge	386			X		
Retirement-Mandatory	300				X	
Retirement-Disability	301				X	
Retirement-In lieu of involuntary action	304				X	
Resignation-In lieu of involuntary action	312				X	
Death	350				X	
Termination-Military	353				X	
Termination-Expiration of appointment[2]	355				X	
Termination-Involuntary	356				X	
Termination	357				X	
Termination -Appointment In	352					X

[1] Source: U.S. Office of Personnel Management, "Federal Personnel Manual, Supplement 292-1, Book III," Nov. 23, 1983, p. 51. Also see, "Federal Personnel Manual, Supplement 296-33," for detailed explanations of each separation code.

[2] Because the study group for this report included only employees in permanent positions, this category of separations does not apply.

APPENDIX D:

TURNOVER AND TRANSFER RATES FOR SELECTED FEDERAL AGENCIES

AGENCY	Number of Employees in the Agency	TURNOVER										TRANSFERS	
		Total Separations		Resignations		Voluntary Retirements		Agency Separations		Other Separations			
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	1,396,422	119,669	9	69,298	5	30,211	2	5,419	-	14,741	1	32,691	2
Agriculture	82,890	4,757	6	2,169	3	1,871	2	117	-	600	1	1,312	2
Air Force	143,216	11,539	8	4,738	3	5,345	4	234	-	1,222	1	2,635	2
Army	233,281	18,216	8	10,117	4	5,373	2	627	-	2,099	1	5,941	3
Commerce	25,251	1,688	7	922	4	498	2	60	-	208	1	688	3
Defense	63,384	3,666	6	2,097	3	1,147	2	135	-	307	-	2,212	3
Education	4,031	319	8	185	5	53	1	14	-	67	2	144	4
Energy	13,604	877	6	475	3	292	2	10	-	100	1	377	3
EPA	12,210	930	8	718	6	114	1	17	-	81	1	291	2
GSA	13,488	1,048	8	557	4	287	2	52	-	152	1	1,308	10
HHS	102,497	10,988	11	4,364	4	2,007	2	194	-	4,423	4	1,983	2
HUD	11,454	865	8	470	4	236	2	41	-	118	1	323	3
Interior	47,614	3,092	6	1,588	3	988	2	78	-	438	1	1,125	2
Justice	36,234	3,076	8	2,169	6	422	1	254	1	231	1	1,065	3
Labor	15,915	935	6	509	3	245	2	48	-	133	1	442	3
Navy	179,706	13,469	7	7,825	4	3,901	2	481	-	1,262	1	4,715	3
NASA	20,262	1,195	6	481	2	485	2	7	-	222	1	156	1
OPM	4,462	347	8	201	5	59	1	28	1	59	1	320	7
SBA	3,756	293	8	166	4	75	2	8	-	44	1	125	3
State	6,502	822	13	620	10	132	2	8	-	62	1	179	3
Treasury	123,468	15,187	12	11,764	10	1,491	1	1,299	1	633	1	2,876	2
Transportation	55,154	4,848	9	1,579	3	1,622	3	670	1	977	2	773	1
VA	158,063	18,647	12	13,610	9	3,020	2	933	1	1,084	1	2,365	1
All Others	39,985	2,845	7	1,974	5	548	1	104	-	219	1	1,316	3

Notes. All percents are rounded and consequently do not always add up to the total separation rate. Dashes (-) refer to percents that are less than one-half of 1 percent. All data are based on the average number of full-time, permanent, white-collar employees in each agency in 1987. Transfers refer to employees who leave one Federal agency to work for another Federal agency.

APPENDIX E:

TURNOVER AND TRANSFER RATES IN WHITE-COLLAR OCCUPATIONS

Occupation No.	Name	Number of Employees in the Occupation	Turnover Rate (Percent) Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations	Transfer Rate
0006	Correctional Institution Admin.	560	8	1	5	-	1	-
0007	Correctional Officer	4,973	13	9	1	2	1	2
0018	Safety & Occup. Health Mgt.	3,490	7	2	3	-	1	3
0025	Park Management	3,932	6	3	2	-	-	2
0028	Environmental Protection Specialist	1,981	5	3	1	-	1	2
0060	Chaplain	505	10	3	4	-	3	-
0080	Security Administration	4,552	5	2	2	-	1	4
0081	Fire Protection & Prevention	10,557	9	4	2	-	3	2
0082	United States Marshall	725	6	4	1	-	1	3
0083	Police	7,614	13	8	2	1	3	7
0085	Security Guard	5,693	14	9	2	2	1	2
0099	General Student Trainee	1,090	63	47	-	1	15	2
0101	Social Science	2,452	6	3	2	-	1	2
0105	Social Insurance Administration	20,212	8	2	2	-	4	1
0110	Economist	4,462	7	5	1	-	1	2
0120	Food Assistance Program Specialist	880	5	3	1	-	1	2
0130	Foreign Affairs	1,412	11	6	2	-	2	1
0132	Intelligence	2,661	5	3	1	-	-	3
0170	History	590	4	2	2	-	1	1
0180	Psychology	2,997	7	3	1	-	2	1
0181	Psychology Aid & Technician	926	8	6	2	-	1	2
0185	Social Work	3,667	8	3	1	-	3	1
0186	Social Services Aid & Assistant	753	11	6	1	1	2	2
0188	Recreation Specialist	898	11	7	2	-	1	3
0189	Recreation Aid & Assistant	802	13	9	1	1	2	2
0201	Personnel Management	8,767	5	2	2	-	1	5
0203	Personnel Clerical & Assistance	11,349	8	6	1	-	1	7
0204	Military Personnel Clerk & Tech.	9,653	11	6	2	-	2	3
0205	Military Personnel Management	1,404	6	1	2	-	2	-
0212	Personnel Staffing	3,731	5	2	2	-	1	5
0221	Position Classification	2,377	5	2	2	-	-	6
0230	Employee Relations	1,700	6	3	2	-	1	5
0233	Labor Relations	1,045	4	1	2	-	1	6
0235	Employee Development	2,352	5	2	2	-	1	4
0249	Wage & Hour Compliance	1,083	4	1	1	-	1	-

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Occupation No.	Name	Number of Employees in the Occupation	Turnover Rate (Percent) Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations	Transfer Rate
0260	Equal Employment Opportunity	2,164	5	2	2	-	1	3
0301	Miscellaneous Admin. & Program.	26,094	6	2	3	-	1	1
0303	Miscellaneous Clerk & Assistant	50,798	11	7	2	1	1	3
0304	Information Receptionist	868	11	7	2	1	1	5
0305	Mail & File	17,748	15	10	2	2	1	3
0312	Clerk Stenographer & Reporter	3,041	11	9	1	-	1	6
0318	Secretary	90,156	9	7	2	-	1	5
0322	Clerk-Typist	39,638	16	13	1	1	1	8
0332	Computer Operation	9,197	7	3	2	-	1	2
0334	Computer Specialist	40,430	5	2	2	-	1	2
0335	Computer Clerk & Assistant	9,357	7	4	2	-	1	2
0340	Program Management	3,804	6	1	3	-	2	-
0341	Administrative Officer	7,092	7	2	3	-	2	2
0342	Support Services Administration	3,737	7	2	3	-	1	2
0343	Management Analysis	15,787	5	2	2	-	1	2
0344	Management Clerical & Assistance	7,837	7	4	2	-	1	2
0345	Program Analysis	17,028	5	1	2	-	1	1
0346	Logistics Management	7,840	7	1	5	-	1	1
0350	Equipment Operator	2,537	10	7	1	1	1	3
0356	Data Transcriber	7,896	52	44	1	6	1	6
0360	Equal Opportunity Compliance	3,176	6	2	2	-	1	2
0382	Telephone Operating	2,132	14	7	4	1	2	2
0390	Communications Relay Operation	617	31	28	2	-	-	1
0391	Communications Management	1,775	7	2	4	-	1	3
0392	General Communications	2,946	9	5	2	-	1	3
0393	Communications Specialist	2,859	5	2	3	-	1	3
0401	General Biological Science	4,097	4	2	2	-	-	1
0403	Microbiology	1,595	6	3	2	-	-	1
0404	Biological Technician	3,591	9	5	2	-	1	1
0414	Entomology	664	4	-	3	-	1	-
0436	Plant Protection & Quarantine	1,099	3	1	2	-	-	1
0454	Range Conservation	1,209	3	2	1	-	-	1
0457	Soil Conservation	4,510	5	1	3	-	1	-
0458	Soil Conservation Technician	1,911	8	2	5	-	1	-
0460	Forestry	5,972	3	1	1	-	1	-
0462	Forestry Technician	5,573	4	1	2	-	1	1
0470	Soil Science	1,691	5	2	3	-	-	1
0475	Agricultural Management	3,707	7	5	2	-	1	1
0482	Fishery Biology	1,262	4	2	1	-	1	-
0485	Wildlife Refuge Management	563	2	1	1	-	-	1
0486	Wildlife Biology	1,409	2	-	1	-	1	1
0501	Financial Administration & Program	4,820	6	2	3	-	1	1
0503	Financial Clerical & Assistance	5,491	9	5	2	-	1	3
0505	Financial Management	1,278	5	1	3	-	1	1
0510	Accounting	10,429	5	2	2	-	1	4

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Occupation No.	Name	Number of Employees in the Occupation	Turnover Rate (Percent)					Transfer Rate
			Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations	
0511	Auditing	13,023	5	3	1	-	-	4
0512	Internal Revenue Agent	15,848	7	5	1	-	-	1
0525	Accounting Technician	20,308	8	5	2	-	1	3
0526	Tax Technician	4,467	6	4	1	-	-	1
0530	Cash Processing	2,099	12	9	2	1	1	4
0540	Voucher Examining	5,284	10	7	2	-	1	4
0544	Payroll	3,861	10	6	3	-	1	4
0545	Military Pay	4,051	11	6	3	-	1	3
0560	Budget Analysis	11,119	5	2	3	-	1	2
0561	Budget Clerical & Assistance	3,538	7	5	1	-	-	3
0570	Financial Institution Examining	4,345	7	6	1	-	-	-
0592	Tax Examining	19,130	18	14	1	2	1	2
0601	General Health Science	1,693	13	8	2	-	3	1
0602	Medical Officer	7,622	12	6	3	-	3	-
0603	Physician's Assistant	1,152	14	13	-	1	-	1
0610	Nurse	35,851	15	12	2	-	2	1
0620	Practical Nurse	12,067	19	16	1	1	1	1
0621	Nursing Assistant	16,743	16	7	4	1	4	1
0622	Medical Supply Aide & Technician	2,036	12	7	2	1	1	2
0630	Dietitian & Nutritionist	1,412	11	7	3	-	1	1
0631	Occupational Therapist	612	21	16	2	-	3	1
0633	Physical Therapist	524	19	17	2	-	-	-
0635	Corrective Therapist	527	7	5	2	-	-	-
0636	Rehabilitation Therapy Assistant	791	11	5	4	-	2	-
0638	Recreation/Creative Arts Therapist	689	13	6	1	-	6	1
0644	Medical Technologist	4,893	9	7	1	-	1	2
0645	Medical Technician	1,887	11	8	2	1	1	2
0646	Pathology Technician	573	13	11	1	-	-	3
0647	Diagnostic Radiologic Technologist	2,676	13	10	1	1	1	2
0649	Medical Machine Technician	1,906	10	7	2	-	1	1
0651	Respiratory Therapist	576	10	6	2	-	1	2
0660	Pharmacist	3,205	11	9	1	-	1	2
0661	Pharmacy Technician	2,403	12	10	-	1	1	1
0665	Speech Pathology Audiology	568	8	6	1	-	1	1
0671	Health System Specialist	867	4	3	1	-	1	1
0675	Medical Record Technician	2,415	10	7	2	-	1	3
0679	Medical Clerk	9,729	15	12	1	1	1	5
0680	Dental Officer	882	4	1	1	-	1	-
0681	Dental Assistant	2,578	10	8	2	-	-	2
0683	Dental Laboratory Aid & Technician	785	7	4	2	-	1	-
0685	Public Health Program Specialist	1,001	7	3	2	-	2	-
0690	Industrial Hygiene	1,108	9	7	1	-	1	6
0696	Consumer Safety	1,412	4	2	2	-	1	-
0699	Health Aid & Technician	3,970	23	10	3	1	10	2
0701	Veterinary Medical Science	1,880	7	2	4	-	1	-

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Occupation No.	Name	Number of Employees in the Occupation	Turnover Rate (Percent)					Transfer Rate
			Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations	
0801	General Engineering	18,020	5	2	3	-	1	1
0802	Engineering Technician	22,505	6	2	3	-	1	1
0803	Safety Engineering	537	8	5	2	-	1	3
0806	Materials Engineering	1,173	5	3	2	-	-	1
0807	Landscape Architecture	545	2	1	1	-	-	1
0808	Architecture	1,717	5	3	1	-	1	3
0809	Construction Control	3,505	8	3	4	-	1	2
0810	Civil Engineering	15,087	5	2	2	-	1	1
0817	Surveying Technician	1,015	8	4	2	-	1	2
0818	Engineering Drafting	1,160	9	5	3	-	2	2
0819	Environmental Engineering	2,605	7	6	1	-	-	1
0830	Mechanical Engineering	13,009	5	3	2	-	-	1
0840	Nuclear Engineering	2,583	5	4	1	-	-	1
0850	Electrical Engineering	4,462	5	2	2	-	1	2
0855	Electronics Engineering	26,075	4	2	2	-	-	1
0856	Electronics Technician	19,882	6	1	4	-	1	1
0861	Aerospace Engineering	8,562	5	2	2	-	1	1
0871	Naval Architecture	1,292	5	3	1	-	1	1
0893	Chemical Engineering	1,618	5	4	1	-	-	1
0895	Industrial Engineering Technician	2,675	7	1	4	-	1	1
0896	Industrial Engineering	3,035	6	3	2	-	1	3
0899	Engin. & Architect Student Trainee	1,238	60	46	-	1	13	2
0905	General Attorney	16,547	9	8	1	-	-	3
0930	Hearings & Appeals	1,356	3	1	2	-	-	-
0935	Administrative Law Judge	994	6	-	5	-	1	2
0950	Paralegal Specialist	2,474	7	3	2	-	2	2
0962	Contact Representative	12,423	11	7	2	-	2	1
0963	Legal Instruments Examining	2,082	5	3	2	-	1	3
0967	Passport & Visa Examining	587	12	9	2	-	1	3
0986	Legal Clerk & Technician	6,764	9	7	2	-	1	5
0990	General Claims Examining	797	6	3	3	-	1	3
0991	Worker's Comp. Claims Examiner	649	5	3	1	-	1	2
0993	Social Insurance Claims Examiner	8,798	8	2	2	-	4	1
0996	Veterans Claims Examining	2,230	5	2	2	-	1	1
0998	Claims Clerical	11,118	12	6	2	-	3	3
1001	General Arts & Information	2,259	7	3	2	-	1	1
1016	Museum Specialist & Technician	551	6	4	2	-	-	1
1020	Illustrating	1,409	7	3	2	-	1	1
1035	Public Affairs	3,070	6	3	2	-	1	2
1060	Photography	1,911	8	2	4	-	1	1
1071	Audio-Visual Production	933	7	3	3	-	1	1
1082	Writing & Editing	1,770	8	5	3	-	1	2
1083	Technical Writing & Editing	1,730	7	2	4	-	1	1
1084	Visual Information	1,664	5	2	3	-	-	-
1087	Editorial Assistance	2,093	7	4	2	-	1	3

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Occupation No.	Name	Number of Employees in the Occupation	Turnover Rate (Percent) Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations	Transfer Rate
1101	General Business & Industry	13,544	7	3	3	-	1	1
1102	Contract & Procurement	28,377	6	2	2	-	1	5
1103	Industrial Property Management	1,011	6	2	3	-	1	3
1104	Property Disposal	1,032	6	1	4	-	1	1
1105	Purchasing	6,036	8	5	2	-	1	4
1106	Procurement Clerical & Assistance	9,427	8	6	1	-	1	4
1107	Property Disposal Clerical & Assist.	574	7	5	2	-	1	5
1130	Public Utilities Specialist	598	6	4	2	-	1	1
1140	Trade Specialist	525	7	4	2	-	1	2
1144	Commissary Store Management	953	8	2	5	-	1	1
1145	Agricultural Program Specialist	563	8	1	6	-	1	-
1150	Industrial Specialist	2,940	6	2	4	-	-	2
1152	Production Control	7,502	8	2	5	-	1	1
1160	Financial Analysis	1,373	6	5	1	-	-	2
1165	Loan Specialist	4,016	5	2	2	-	1	1
1169	Internal Revenue Officer	7,837	6	4	1	-	1	1
1170	Realty	3,171	6	2	2	-	1	3
1171	Appraising & Assessing	1,092	8	2	4	-	1	1
1173	Housing Management	2,157	8	3	3	-	1	2
1176	Building Management	776	7	3	3	-	1	11
1224	Patent Examining	1,356	9	7	2	-	-	1
1301	General Physical Science	4,721	5	3	2	-	1	1
1306	Health Physics	542	8	5	2	-	1	2
1310	Physics	3,850	4	2	2	-	-	-
1311	Physical Science Technician	3,279	8	5	2	-	-	1
1313	Geophysics	566	4	2	2	-	1	1
1315	Hydrology	2,170	4	2	2	-	1	1
1316	Hydrologic Technician	1,331	6	3	2	-	2	1
1320	Chemistry	6,661	5	2	2	-	1	1
1340	Meteorology	2,155	3	1	2	-	-	1
1341	Meteorological Technician	2,008	6	1	4	-	1	1
1350	Geology	2,354	4	2	2	-	-	1
1360	Oceanography	722	4	2	1	-	1	2
1370	Cartography	4,515	4	1	2	-	1	2
1371	Cartographic Technician	1,642	6	3	2	-	1	1
1410	Librarian	1,887	7	4	2	-	1	3
1411	Library Technician	2,071	7	4	3	-	1	2
1412	Technical Information Services	1,081	6	2	3	-	1	1
1421	Archivist Technician	879	7	4	2	-	1	5
1515	Operations Research	3,761	4	3	1	-	-	2
1520	Mathematics	2,783	4	2	2	-	-	1
1529	Mathematical Statistician	941	3	3	-	-	-	1
1530	Statistician	2,478	4	3	1	-	-	1
1531	Statistical Assistant	1,978	6	3	2	-	1	2
1550	Computer Science	2,143	7	7	-	-	-	1

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Occupation No.	Name	Number of Employees in the Occupation	Turnover Rate (Percent) Total Separations	Resignations	Voluntary Retirements	Agency Separations	Other Separations	Transfer Rate
1601	General Facilities & Equipment	2,563	7	1	4	-	1	1
1640	Facility Management	904	6	2	3	-	1	1
1654	Printing Management	1,055	7	1	4	-	1	2
1670	Equipment Specialist	11,299	6	1	4	-	1	1
1701	General Education & Training	832	9	5	2	-	2	2
1702	Education & Training Technician	3,902	9	4	2	-	3	1
1710	Education & Vocational Training	4,933	7	3	2	-	1	1
1712	Training Instruction	7,189	6	2	3	-	1	1
1801	General Inspect., Investig., & Compl.	3,335	5	3	1	-	-	1
1802	Compliance Inspection & Support	1,835	7	5	1	1	1	5
1810	General Investigation	3,075	4	2	1	-	-	3
1811	Criminal Investigating	16,179	4	1	1	-	1	4
1816	Immigration Inspection	1,982	5	2	2	1	1	2
1822	Mine Safety & Health	1,528	4	1	2	-	1	-
1825	Aviation Safety	2,241	6	2	3	-	1	-
1854	Alcohol, Tobacco, Firearms Inspect.	652	2	1	1	-	-	2
1863	Food Inspection	6,487	6	1	3	-	1	-
1889	Import Specialist	926	6	2	3	-	-	-
1890	Customs Inspection	4,169	4	1	2	-	1	1
1896	Border Patrol Agent	3,171	9	5	1	2	-	3
1897	Customs Aid	1,049	7	5	2	-	1	2
1910	Quality Assurance	16,400	7	2	4	-	1	2
1980	Agricultural Commodity Grading	2,223	6	3	2	-	1	-
2001	General Supply	5,061	7	1	5	-	1	1
2003	Supply Program Management	6,218	6	1	4	-	1	1
2005	Supply Clerical & Technician	27,462	9	4	3	-	1	2
2010	Inventory Management	9,372	8	1	6	-	1	1
2030	Distrib., Facil., & Storage Mgt.	759	9	2	6	-	1	2
2050	Supply Cataloging	1,786	6	1	4	-	1	-
2091	Sales Store Clerical	2,116	17	12	3	1	1	1
2101	Transportation Specialist	1,702	8	2	4	-	1	1
2102	Transportation Clerk & Assistant	1,684	9	4	2	-	1	2
2130	Traffic Management	1,620	7	1	5	-	1	2
2131	Freight Rate	1,340	9	3	5	-	1	2
2132	Travel	1,492	10	7	2	-	1	4
2134	Shipment Clerical & Assistance	2,676	9	6	2	-	1	4
2150	Transportation Operations	733	7	3	3	-	1	1
2152	Air Traffic Control	22,782	9	3	3	3	1	-
2154	Air Traffic Assistance	1,479	10	8	1	1	-	2
2181	Aircraft Operation	2,953	8	4	1	-	2	1

Notes. Because all percents are rounded, component turnover rates do not always add to the total separation rate. Transfer rate refers to the rate at which employees leave one Federal agency to work for another Federal Agency. The number of employees is based on the average number of full-time employees in each occupation in 1987. Only occupations with at least 500 employees and for which CPDF data were available are shown. Dashes (-) indicate that the percent is less than one-half of 1 percent.

APPENDIX F:

SEASONAL EMPLOYEES IN THE FEDERAL GOVERNMENT

An unexpected finding during this analysis was the inclusion of "seasonal employees" in the employees studied. The study group was designed to include full-time, permanent employees--i.e., employees who are most representative of the Federal work force, as a whole. Seasonal employees work only part of the year and, in that sense, are not representative of the larger Federal work force. Nevertheless, many seasonal employees work "full-time" and they are in permanent positions. Consequently, they matched the criteria for inclusion in the study group.

The number of seasonal employees is too small to affect the Governmentwide turnover rates, even though some types of seasonal employees have unusually high turnover rates. However, in the analyses of some component work force subgroups, the proportion of seasonal employees with a high rate of turnover is large enough to affect the overall average rate for those subgroups.

Because seasonal employees represented only a small proportion of the study group, separate analyses were not run. Moreover, since seasonal employees represented a significant component of the work force in some identifiable subgroups, their inclusion in the analyses was considered appropriate.

The authority for seasonal employees is described in Chapter 340 of the Federal Personnel Manual.[1] Consistent with the benefits for permanent employees, seasonal employees receive the full range of benefits to attract and retain a stable work force, including life insurance and health insurance and up to 6 months credit for retirement while in a nonpay status.

Seasonal employees are hired on a recurring basis to enable agencies with fluctuating workloads to develop a trained cadre of workers. Seasonal employees are placed on nonduty/nonpay status during the off-season. While in nonpay status, seasonal employees may accept other employment, Federal or non-Federal, but subject to certain Federal regulations, such as regulations pertaining to political activities of Federal employees. Depending on the state law, seasonal employees may be eligible for unemployment compensation, while in nonpay status.

Because the workload of most Federal agencies tends to be relatively evenly distributed, seasonal employees are primarily found in five agencies: the Department of the Treasury, the Department of the Interior, the Department of Agriculture, the Department of Health and Human Services, and the Department of State. The Internal Revenue Service (IRS) of the Department of the Treasury accounts for about 80 percent of the approximately 26,000 seasonal employees who are placed in a pay status in a given year.[2]

Each of the agencies that uses seasonal employees does so in a different way and for a different purpose. Consequently, the seasons differ, the occupations differ, and the grade levels differ. The seasonal employees in the Department of State help process passports during the tourist seasons, while seasonal employees in the Department of the Interior help staff the parks during the vacation seasons. Many of these positions are at a relatively higher

[1] U.S. Office of Personnel Management, "Federal Personnel Manual," Chapter 340, Subchapter 2, pp. 9-12.

[2] Calculated from: U.S. Office of Personnel Management, "OMB Turnover Report," unpublished computer reports, Oct. 27, 1988, and Mar. 25, 1988.

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grade level (GS 5 and above) and are positions considered attractive by job applicants. Employees in these positions tend to like their work, as well as the seasonal nature of the work. Consequently, turnover in these seasonal positions is relatively low and employees tend to return season after season. Both because the number of employees involved is relatively small and because the rate of turnover among these types of seasonal employees is not known to be particularly different from the employees in the study group, separate consideration of these seasonal employees is not warranted.

Seasonal employees in the IRS of the Treasury Department, however, represent a very different type of work force. Most of these seasonal employees help process tax returns and are hired in large numbers during the tax return season. Employees in these positions tend to work in low grade levels, GS-2 and GS-3, and tend to do highly routine work. Most of these seasonal employees can be found in the lower grades of the tax examiner (GS-592), data transcriber (GS-354), and clerk (GS-303) positions.

Unlike seasonal employees in the relatively higher grades in other agencies, seasonal employees in the IRS have known high rates of turnover that tend to skew the turnover data for any employee group that includes a large proportion of these workers. Specifically, the turnover rates for GS-2's, tax examiners, and data transcribers, must consider the inclusion of seasonal employees in any interpretation.